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GOLDEN GLOW

FLOODLIGHTING PROJECTORS

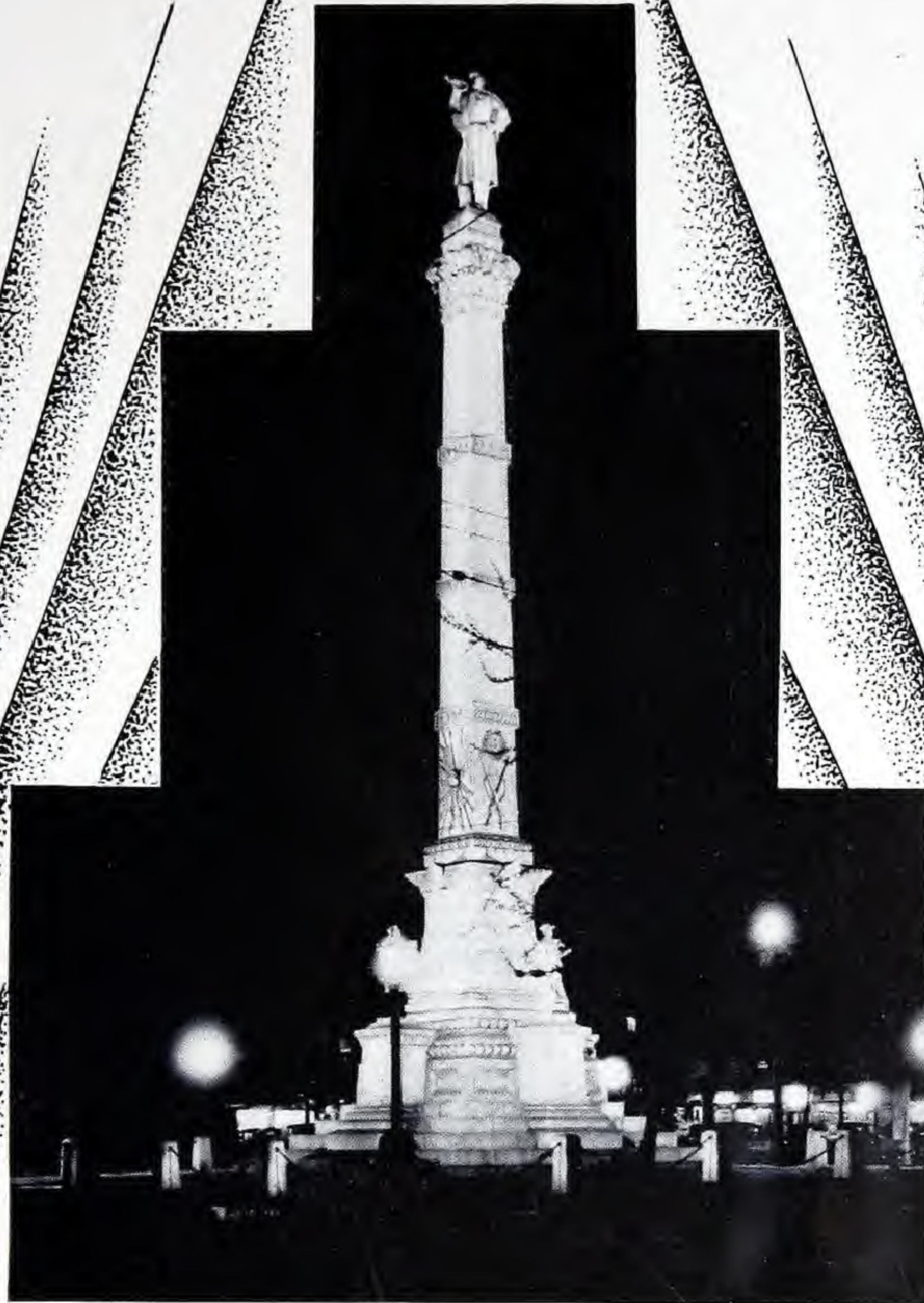
ELECTRIC SERVICE SUPPLIES COMPANY

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GOLDEN GLOW

FLOODLIGHTING PROJECTORS
and LANTERN-FLOODLIGHTS

ELECTRIC SERVICE SUPPLIES CO.

MANUFACTURERS

Home office and manufacturing plant located at 17th and Cambria Streets, Philadelphia, Pa.; District offices are located at 111 North Canal Street, Chicago, Ill., and 50 Church Street, New York City.

Bulletin No. 325

Branches—Bessemer Bldg., Pittsburgh; 88 Broad Street, Boston; General Motors Bldg., Detroit; Lyman Tube & Supply Company, Ltd., Montreal, Toronto, Winnipeg, Vancouver.

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Golden Glow Floodlighting Projectors



High above the streets of Chicago and from the distant counties is seen this beautiful tower of the Chicago Tribune Building illuminated with amber light, the buttresses appearing in dark silhouette. A progressive newspaper puts its stamp of approval on this progressive form of advertising. This illumination was produced by 174 14-inch Golden Glow projectors.

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Golden Glow Floodlighting Projectors



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Golden Glow Floodlighting Projectors



The architect and the promoter are no longer satisfied to have their creations visible only during the daylight hours. Brilliant illumination against a background of darkness brings out many architectural features unnoticed in daylight, and it quickly eliminates competitive building enterprises in the public eye. It is advertising of the highest order. Above is illustrated the Carbon & Carbide building, one of Chicago's most beautiful buildings lighted in amber and green colors, using 10 type A-2016, 44 type A-1419 and 50 type A-1016 Golden Glow Projectors.

Golden Glow Floodlighting Projectors



Beautiful capitol domes are usually well adapted to floodlighting. The center of political activity can be made visible to the populace for miles around by brilliantly painting the domes with clear or colored light, using Golden Glow projectors. Above is illustrated the Missouri State Capitol at Jefferson City, Missouri, as it appears illuminated by night, using 16 type A-2016, 12 type A-1419 and 4 type A-1016 Golden Glow projectors.

Golden Glow Floodlighting Projectors



The home of Central Illinois Public Service Co., Springfield, Ill. An outstanding example of automatic electrically controlled changing color floodlighting. Four sets of color screens are used, viz., Red, Blue, Green and Amber permitting seasonal or other color combinations. Automatic color changes and varying intensities are accomplished by dimmer equipment. A total of 251-10" and 14" projectors are used to floodlight the upper portion of the building including the pent house. The lower portion of the building is illuminated by Golden Glow Lantern-Floodlights mounted on specially designed ornamental triple standards at the curb line.

Golden Glow Floodlighting Projectors



This impressive night view of the Grant Park section of Chicago illustrates the value of floodlighting as an advertising medium. It is safe to assume that the Tribune Tower, the Carbon-Carbide building, and the Pure Oil building, all illuminated with Golden Glow projectors, are among the most well-known buildings of Chicago.

Golden Glow Floodlighting Projectors



The fountain in Logan Square, Philadelphia, created new interest when brilliantly illuminated in ever-changing colors. Sparkling clear, red and green light from Golden Glow projectors provide the illumination. The floodlighting of fountains, statues, memorials, etc., can often be made part of a public celebration of national holidays or other local events.

Golden Glow Floodlighting Projectors

On the foregoing pages we have illustrated a number of floodlight installations, some because of their great beauty and others because they were unusual in their nature. The objective is to impress upon the reader the value of floodlighting as an advertising medium.

The picture on page 7 is a night view of the Grant Park Section of Chicago and demonstrates the value of light as an advertising medium, showing as it does the illuminated towering monuments of big enterprises. Man marvels at these spectacles produced by artificial light. To a degree he measures the progress of his community, using light as his yardstick—the institutions using light boldly inspire confidence in him.

With fuller realization of the value of floodlighting as well as its possibilities, there have come new projector units, new lamps and new architecture to greatly simplify the proposition.

It is no longer considered good practice to construct an elaborate structure to be visible only during the daylight hours. Today, because of the great expense and effort expended on the exterior appearance of the structure and the necessity of getting the greatest return from the building investment, it is necessary to make it visible to the public during pleasure hours as well as working hours by employing floodlighting.

Floodlighting very often greatly enhances the beauty of the exterior of the building, making it stand out in bold relief against the background of darkness, in many cases dominating all other buildings in the community. There is perhaps no other method which will so quickly bring into prominence a new or existing building.

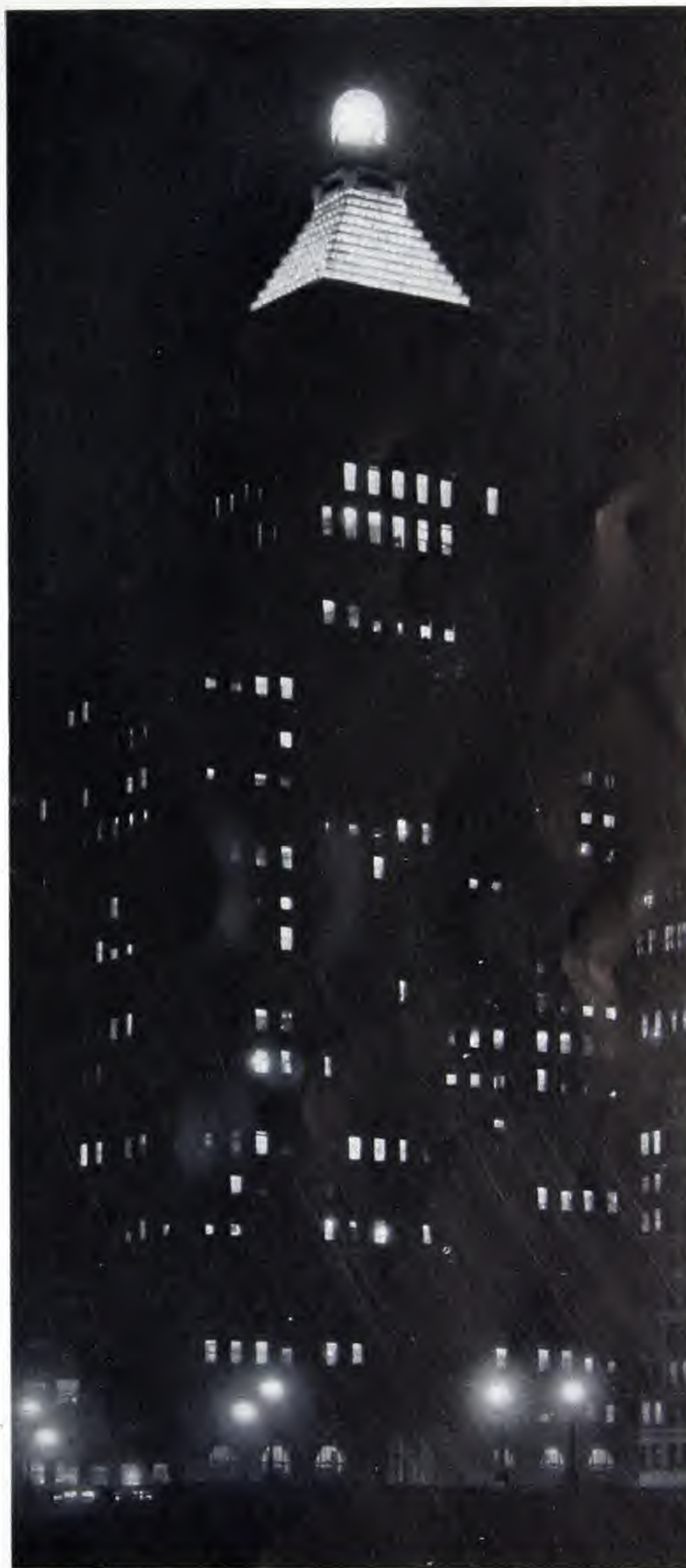
For these reasons architects generally are designing buildings with the thought of floodlighting them on completion, and because floodlighting is a relatively new proposition this company is prepared to supply complete engineering service to architects and contractors to assist in working out the details of any floodlight project, large or small.

On the pages directly following are shown a few of the numerous utilitarian applications. A complete list of such applications for floodlighting is given on page 13 of this bulletin.

In the use of floodlight projectors for the numerous smaller applications it is well to realize that the subject to be illuminated need not necessarily be mammoth in size to be impressive. Floodlighting will greatly enhance a modest piece of architecture because it eliminates from the observer all distracting influences in close proximity making the eye of the passerby to see only the project illuminated.

The lantern-floodlight, described on page 35 of this bulletin, is applicable to numerous smaller floodlight projects. These units are extensively used where space is limited and where the ornamental effect of the lantern and standard is desirable or where the standard type projector would be unsightly or mar the architectural beauty of the layout. They are used extensively in the illumination of banks, store fronts and such other smaller projects, also gas service stations, swimming pools, etc. In some projects, projectors are used to illuminate the upper portions of the structure and the lantern-floodlights for the illumination of the lower part. Examples of such installations are the monument pictured on the title page of this bulletin and the building of the Central Illinois Public Service Co. illustrated on page 6.

This company will be glad to give all users the benefit of their experience to assist in accomplishing the desired results in floodlighting projects large or small.



Above is illustrated the Straus Building in Chicago where 16 type A-1419 Golden Glow floodlight projectors are used to illuminate the beehive which tops the tower of the building. These projectors are fitted with prismatic reflectors, Fanlight lenses and 1000 watt lamps.

Golden Glow Floodlighting Projectors



The Horn and Hardart Baking Company of Philadelphia use Golden Glow projectors for sign illumination. The illustration above shows the impressive silhouette effect produced by the top of the building, by the use of three 14-inch diameter projectors.



Night excavation work being carried on with Golden Glow floodlights. Installation consists of eight 14-inch diameter projectors with 1000 watt lamps covering an area of 165 x 120 ft.

Golden Glow Floodlighting Projectors



This very remarkable night photograph shows the illumination provided by 18 type A-2430 and 25 type A-2016 Golden Glow projectors in the yards of a prominent eastern trunk line railroad. Units are mounted on three towers, all similarly equipped; the one illustrated being equipped with 6 type A-2430 and 11 type A-2016 units. Hand lanterns or other illumination is no longer necessary in this yard, even at the hump.

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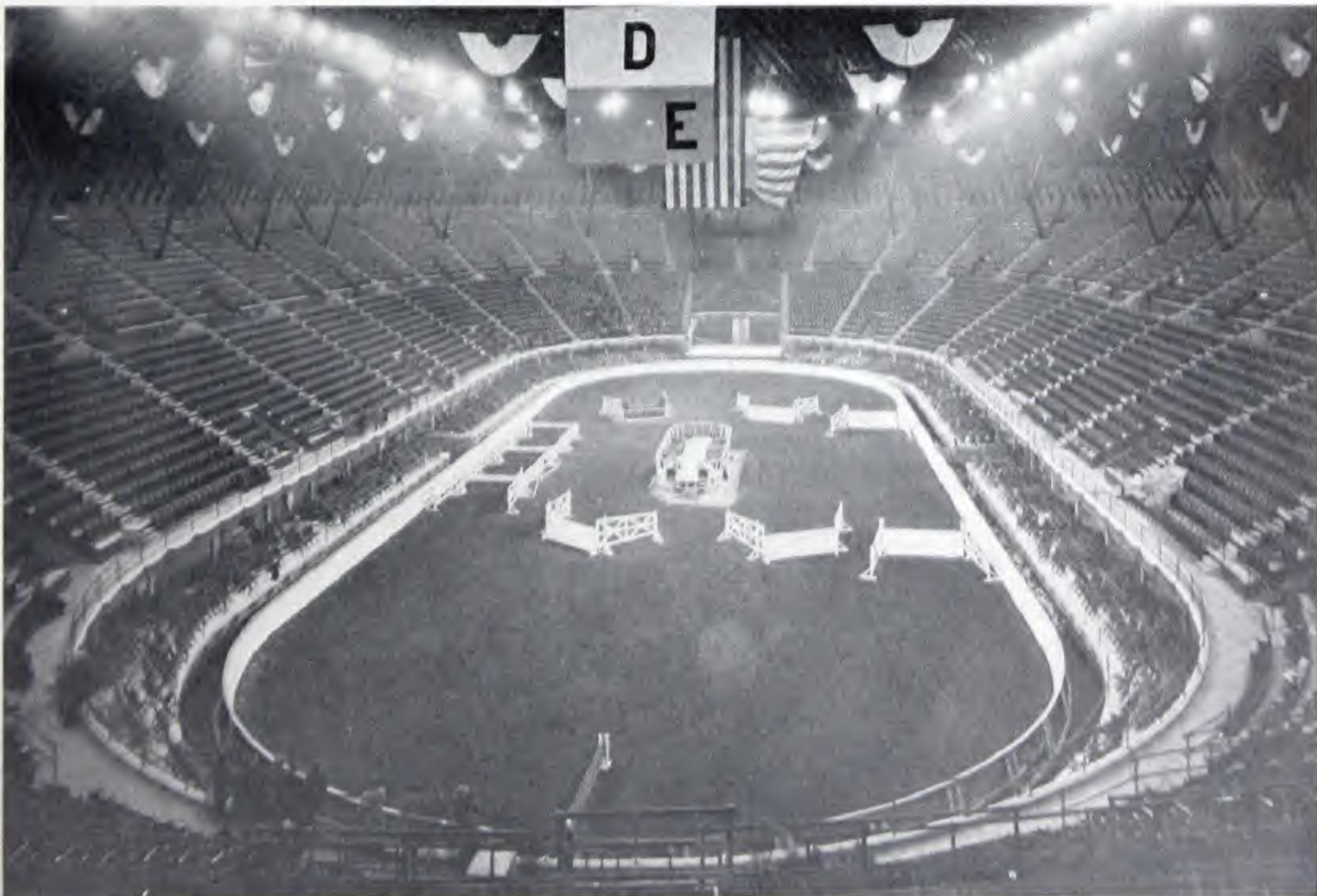


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Golden Glow Floodlighting Projectors



Illustration shows golf driving range illuminated with ten 14" Golden Glow floodlighting projectors complete with 1000 watt lamps.



Interior view of the St. Louis Arena illuminated using Golden Glow floodlighting projectors. The arrangement of the units is such that even distribution of light is secured without glare or shadows.

Golden Glow Floodlighting Projectors

THE term "floodlighting" covers many varied applications of projected light, ranging from the strictly utilitarian lighting of railway freight yards, parking areas, etc., to the beautiful decorative effects obtained by the use of color on some of our modern buildings. While these many applications of projected light are rightfully known as floodlighting, a closer classification can be made.

Floodlighting can be grouped into two general classes. The one class—area lighting—includes those floodlighting applications which require that a specified area be lighted to some predetermined intensity and is generally for some strictly commercial purpose such as the lighting of construction work so that nightfall will not necessitate ceasing of operation, the lighting of freight yards so that freight movement may be speeded up over the railroad, etc. In general, area lighting would include: construction work, outdoor sports fields, parking places, railroad yards, storage areas, etc.

The other general class of floodlighting—display lighting—includes installations running from the lighting of a sign on a water tank or stack, to the illumination of large buildings with mobile color effects. This classification would include: buildings, gasoline filling stations, monuments, signs, stacks, water tanks, etc.

In almost every instance an installation of display lighting is used as an advertising medium. With the high efficiency of the present incandescent lamps and the availability of electrical energy at moderate cost, the use of light as an advertising medium is reduced to a point where it is one of the cheapest available. In spite of the low cost of the necessary electrical energy, light has, in an outstanding measure the ability to do that which successful advertising must do— attract attention. Based on nominal current costs and including all additional factors it was found that a large organization in one of the leading cities could floodlight their building in color for a period of three months at a cost equivalent to one full page advertisement in one of the city's dailies for one day.

Experience has proven that light does attract attention and upon the basis of effective advertising, display lighting more than justifies itself.

Floodlighting of building exteriors, statues, etc., should be so planned that unnatural high lights and shadows do not produce a distorted and grotesque appearance. The main consideration is to so light the object that the effect desired by the architect or sculptor, as the case may be, is not destroyed, instead, if possible, accentuated. In the case of statuary, etc., the floodlighting design should approximate daylight conditions by combining strong directional light downward, with diffused illumination to relieve harsh shadows, if necessary. In building illumination any unusual or striking architectural feature should be emphasized. It is possible to create the impression of height by producing shadows with the light directed upward almost parallel to the face of the building. It should be remembered that the intensity of the upper floors should be higher than that of the lower to produce equality of illumination to an observer on the street below.

Lighting of this character, depending as it does upon the appeal to the artistic senses is admirably adapted to arrangements combining the spectacular and beautiful. Extreme care should be exercised to avoid exposed light sources or spotty illumination. Color effects by means of glass screens may be made highly attractive. A word of caution is suggested in that economy of installation, while always desirable, is frequently given undue weight. It is often true that installations planned with the thought of economy predominating are unsatisfactory, because the artistic treatment of the project is inadequate. The first, last and only rule for this class of work should be "provide pleasing illumination."

REFLECTING MATERIALS

From the many types of reflecting materials available for floodlight projector service, we have chosen to use the silvered

glass reflector throughout the entire line. The use of silvered glass is based, as shown below, upon its having the highest lasting reflecting value, which makes it possible to produce a reflector which is extremely efficient.

Percentage of Light Reflected

Silvered glass.....	88%
Chromium plating.....	65%
Polished aluminum.....	62%
Nickel plating.....	55%

While pure metallic silver, such as is used to plate sheet metal reflectors, has a high initial reflection value of approximately 95% its use as such is not practical due to rapid tarnishing. A protective lacquer applied to the silver reduces the reflecting value appreciably and in the presence of heat, generated by the lamp, this reduction is increased, falling in some cases to approximately 35%.

COLOR EFFECTS

The effectiveness of floodlighting can, in many instances, be increased by the proper use of color. This is accomplished by the introduction of color glass as covered in the following pages of this catalog.

The use of color in display lighting is rapidly coming into vogue and many extremely attractive and beautiful results have been obtained. Colored lighting can be either of one stationary color or a mobile combination of many colors. The moving color effects and changes from one color to another are accomplished by the use of properly designed dimming equipment similar to that used in theatrical work.

The following table gives the transmission value of standard color screens and the additional wattage, expressed in percent, needed to compensate for loss of light absorbed by the color screen.

In planning a color floodlight installation it is recommended that the method of calculating the number of projectors for white light be followed and that this number be increased by the amount shown below, depending on the color used. In checking for coverage, in formula No. 2 the resultant number of projectors should be used.

	Transmission Factor	Increase Wattage by
Amber.....	40-60%	100%
Red.....	15-20%	200%
Green.....	5-10%	300%
Blue.....	3-5%	500%

FLOODLIGHT INSTALLATION PROCEDURE

In the selection of equipment for a floodlight installation there are certain characteristics which become of major importance, depending upon the type of installation. These characteristics are: beam spread, beam efficiency, candle power and beam pattern. In cases where the equipment is mounted close to the surface or object illuminated the overall or total efficiency of the unit becomes of importance.

While each characteristic is in itself important the contemplated installation will, generally, show which one becomes the most important. It can be readily appreciated that where it is essential to confine the beam to the area to be illuminated the beam spread is of major importance. However, where this beam control is of no great value the beam efficiency becomes an important factor. In any instance the beam pattern must be such that the desired results can be obtained. The following discussion of the proper choice of equipment will illustrate this fact.

EFFECT DESIRED

The first step in the design of a floodlighting project is to determine the effect desired. In the case of building illumination it should enhance the effect striven for by the architect. Decide what portion or portions are to be lighted and to what

Golden Glow Floodlighting Projectors

intensity. In area lighting the use to which the area is to be put will determine the quantity of light needed.

The following is a table showing satisfactory intensities.

DISPLAY LIGHTING

Building Materials	Foot-candle Intensity	
	Min.	Max.
Brick		
Buff, smooth face.....	10	15
Gray.....	10	15
Gray, dark field.....	15	30
Red, common.....	15	30
Tan, common.....	15	20
Brownstone.....	15	30
Limestone		
Bedford.....	10	15
Buff.....	10	15
Gray, light.....	10	15
Gray, medium.....	10	20
Marble, light.....	5	10
Sandstone (Briar Hill).....	10	20
Terra Cotta		
Cream.....	5	10
White.....	5	10
Gardens, flower.....	5	20
Gasoline service stations.....	5	10
Monuments and statues—Depending on material used (See Bldg. Materials)		
Signs, billboards, etc.....	10	30
Stacks.....	8	12
Water tanks.....	8	12

AREA LIGHTING

	Foot-candle Intensity	
	Min.	Max.
Construction work.....	1.0	4.0
Coal docks.....	0.5	4.0
Car barns.....	0.5	2.0
Coal piles.....	0.5	4.0
Dredge operations.....	1.0	2.0
Excavations.....	0.5	2.0
Factory yards.....	0.5	4.0
Foundry yards.....	0.5	1.0
Oil fields.....	0.1	2.0
Railroad yards.....	0.05	0.1
Outdoor sports		
Bathing beaches.....	1	2
Football fields.....	5	10
Golf greens.....	5	20
Ice skating.....	1	2
Pageants.....	10	20
Playgrounds.....	2	4
Swimming pools.....	3	6
Toboggan slides.....	1	2
Trap shooting.....	10	15
Parking Spaces.....	0.1	1.0
Pier and Dock Lighting.....	0.5	4.0
Protection, Industrial.....	0.1	1.0
Quarries.....	0.5	4.0
Shipyards.....	0.1	0.5
Storage Areas.....	0.5	1.0

CHOICE OF LOCATION FOR PROJECTORS

Having decided upon the lighting effect desired the next step is to determine the available locations for projector equipment. Sometimes, particularly in display lighting, the choice of location is very much restricted and the effect to be obtained is greatly influenced by the availability of locations.

DISPLAY LIGHTING

In display lighting the concealment of the equipment is generally of first importance and locations are selected with this end in view.

The lighting of a building with setbacks at various floors offers ideal locations for mounting projectors which will be invisible to observers. They should be mounted inside of and just below the top of the parapet to prevent the accumulation of snow, water, refuse, etc., over them.

When locations for mounting the projecting equipment are not available upon the building itself, the use of Golden Glow lantern floodlight equipment makes possible an effective floodlighting installation without destroying the daylight appearance. It is also possible to locate projecting equipment on the roofs of adjacent buildings. This method, while satisfactory results can be obtained by it, is sometimes unsatisfactory for the reason that the maintenance of equipment becomes involved and change of ownership or building expansion may eliminate that roof as a location for projectors.

In the lighting of filling stations care should be exercised in the choosing of floodlight locations so that the light is not projected directly against the flow of traffic. A general rule is to project the light as nearly at right angles as possible, to the flow of traffic. The use of Golden Glow lantern floodlight equipment makes possible the choosing of locations which neither cause objectionable glare nor destroy the pleasing daylight appearance desired in present service station architecture.

AREA LIGHTING

In this type of lighting it may be said, as a general rule, that the elimination of glare is the deciding factor. One effective way of reducing annoying glare is to mount the projectors a sufficient height above the surface lighted.

A guide in choosing proper mounting heights based upon the maximum beam candlepower of the projector, which will be supplied upon request, follows:

Maximum Beam Candlepower	Minimum Mounting Height—Feet
300,000	90
200,000	70
100,000	50
50,000	30
20,000	20
10,000	15

In the lighting of parking spaces, etc., locating equipment so that it faces the flow of traffic, either in or out, is not recommended. As a general rule the larger portion of light should be directed at right angles or as nearly so as possible to the direction of traffic.

When lighting an area for sports, locations should be chosen so that a minimum number of spectators face the projectors and the area is illuminated evenly over the playing field.

BEAM SPREAD OF PROJECTORS

Having determined upon the location of the projectors and knowing what is to be lighted, it is next necessary to determine the type of projectors to be employed. Floodlighting projectors are grouped into four classes:

Narrow beam projectors—having a beam spread up to and including 15°.

Medium beam projectors—having a beam spread from 16° to 29°.

Wide beam projectors—having a beam spread 30° and over.

Special beam projectors—not included in other classifications.

The exact beam spread required for a specific installation can be easily determined by mathematical calculation or by measurement on a sketch drawn to scale.

The following table shows the type equipment generally used in more common floodlight applications.

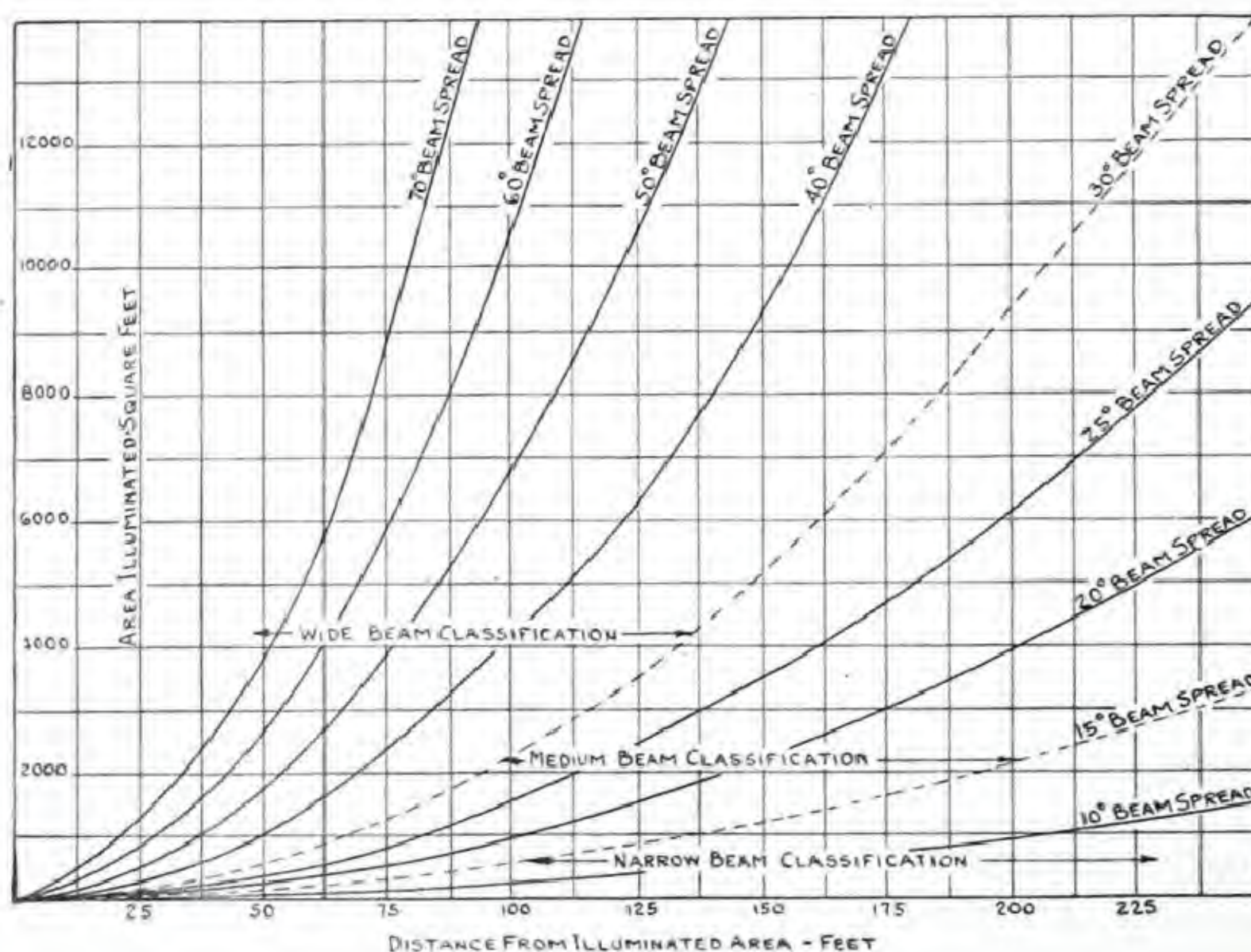
Golden Glow Floodlighting Projectors

DISPLAY LIGHTING

Application	Class of Projector
Buildings—lighted from curb.....	Wide
Buildings—lighted from distance.....	See curve below
Buildings—lighted from setbacks	
With throws one to two stories.....	Medium, wide
With throws three or more stories.....	Narrow, medium
Monuments, statues, etc.....	Narrow
Signs, billboards, etc.....	Wide
Stacks.....	Narrow
Water tanks.....	Narrow

AREA LIGHTING

Construction work.....	Wide
Factory yards, etc.....	Medium, wide
Parking spaces.....	Wide
Sport areas.....	Medium, wide



CHOICE OF PROJECTOR

Having selected the class of projector needed, narrow, medium or wide, etc., based upon the angular dimensions of the object to be illuminated, the next step is to select the particular type projector and lamp to be used. A table showing the beam spread of the various reflectors, lens and lamp combinations is given on the following page.

The projectors having beam characteristics that meet the particular requirements can be determined and reference made to the detailed description.

An analysis of the details of construction, size, material and price will make it possible to choose the type projector best suited for the purpose it is to serve.

NUMBER OF PROJECTORS REQUIRED

Having determined the intensity required and knowing the area to be lighted and having tentatively selected the type projector and lamp to be used the following formula gives the number of projectors required.

$$N = \frac{A \times I}{D \times L} \dots \dots \dots (1)$$

where

N = the number of projectors required.

A = the area to be illuminated, in square feet.

I = the desired intensity, in foot candles.

D = depreciation factor, usually .8.

L = beam lumens (the lumens contained in the projector beam).

The beam lumens of any projector and lamp combination can readily be determined by multiplying the design lumens of the lamp by the beam efficiency of the projector expressed in percent. The beam efficiencies are shown in the table of illumination data on the following page and the design lamp lumens are given in tabular form below. Only a summary of lamp data is given, additional data can be obtained from the lamp data books of the various lamp manufacturers.

STANDARD GENERAL LIGHTING SERVICE LAMPS

Watts	Volt	Bulb	Filament Construction	Screw Base	Hours Designed Life	Design Lumens	Burning Position
200	115	PS30	C9	Med.	1000	3380	Any
300	115	PS35	C7A	Mogul	1000	5490	Any
500	115	PS40	C7A	Mogul	1000	9750	Any
750	115	PS52	C7A	Mogul	1000	14700	Any
1000	115	PS52	C7A	Mogul	1000	20600	Any

STANDARD FLOODLIGHT LAMPS

250	115	G30	C5	Med.	800	3625	*Base Down
500	115	G40	C5	Mogul	800	8300	*Base Down

SPECIAL LAMPS

400	115	G30	C5	Medium	800	6240	*Base Down
1000	115	G40	C5	Mogul	800	17800	*Base Down
1500	115	PS52	C7A	Mogul	1000	33000	Any
1500	115	G48	C5	Mogul	800	27000	*Base Down

*Can be burned in any position except within 45° of base up.

UNIFORMITY OF ILLUMINATION

In the first step, decision was made as to the effect desired from the lighting installation. It was then decided whether or not uniform illumination was essential. If it is essential, as it is in perhaps the majority of cases, it is necessary to determine if the number of projectors, as figured in preceding paragraph, of the type decided upon will cover the area effectively.

A quick method of checking to insure this uniformity is to apply the following formula:

$$\frac{H}{H_1} \times \frac{W}{W_1} \times 1.20 \leq N \dots \dots \dots (2)$$

H is the vertical angle subtended at the projection location by the height of the object to be illuminated.

H₁ is the vertical beam spread of the projector, lens, and lamp combination selected.

W is the horizontal angle subtended at the projector location by the width of the object to be illuminated.

W₁ is the horizontal beam spread of the projector, lens and lamp combination selected.

N is the number of projectors from formula No. 1.

≤ symbol meaning equal or less than.

If the result is equal to or less than the number of projectors N, figured previously the coverage will be satisfactory. If the result is greater, the number of projectors required, N, must be increased to the number found to be required for uniform coverage by the above formula. This increased number of projectors will, of course, raise the illumination intensity. If this is not desirable the wattage of the lamp may be decreased so that the illumination intensity will remain essentially the same. In some instances it may be found advisable to refigure the installation based upon a different type projector.

Golden Glow Floodlighting Projectors

ILLUMINATION DATA

NARROW BEAM CLASSIFICATION Up to 15° Beam Spread

Type Projector	Lamp Wattage	Bulb	Type Reflector	Type Lens	Beam Spread		Efficiency	
					Horizontal	Vertical	Beam	Total
A-2430	1500	G48	Plain	Plain	7½°	6½°	28.5%	68.0%
A-2430	1000	G40	Plain	Plain	7½°	5¼°	28.5%	68.0%
A-2430	1500	PS52	Plain	Plain	12°	10½°	28.5%	68.0%
A-2430	1000	PS52	Plain	Plain	11°	8½°	28.5%	68.0%
A-2016	1000	G40	Plain	Plain	12°	11°	41.0%	71.0%
A-1419	1000	G40	Plain	Plain	10°	9°	25.0%	66.5%
A-1419	500	G40	Plain	Plain	9°	8°	25.0%	66.5%
A-1016	400	G30	Plain	Plain	8½°	6½°	15.0%	55.0%
A-1016	250	G30	Plain	Plain	10°	8°	15.0%	55.0%
B-1717	1000	G40	Plain	Plain	15°	15°	41.0%	72.0%
B-1059	250	G30	Plain	Plain	10°	9°	43.0%	75.0%

MEDIUM BEAM CLASSIFICATION From 16° to 29° Beam Spread

A-2016	1000	PS52	Plain	Plain	22°	13½°	41.0%	71.0%
A-1419	1000	PS52	Plain	Plain	18°	11½°	25.0%	66.5%
A-1419	500	PS40	Plain	Plain	19°	13°	25.0%	66.5%
A-1016	500	PS40	Plain	Plain	22½°	14°	15.0%	55.0%
B-1717	1000	PS52	Plain	Plain	24½°	23°	41.0%	72.0%
B-1313	500	PS40	Plain	Plain	25°	21°	42.0%	73.0%
B-1313	500	G40	Plain	Plain	18°	16°	42.0%	73.0%
B-1059	200	PS30	Plain	Plain	21°	23°	43.0%	75.0%

WIDE BEAM CLASSIFICATION 30° Beam Spread and Greater

A-1419	1000	PS40	Prismatic	Plain	38°	30°	25.0%	66.5%
A-1016	500	PS40	Prismatic	Plain	46°	35°	15.0%	55.0%
A-1016	400	G30	Prismatic	Plain	30°	30°	15.0%	55.0%
A-1016	250	G30	Prismatic	Plain	30°	30°	15.0%	55.0%
B-1717	1000	PS52	Plain	Diffusing	73°	73°	41.0%	72.0%
B-1313	500	PS40	Plain	Diffusing	75°	75°	42.0%	73.0%
B-1059	200	PS30	Plain	Diffusing	79°	79°	43.0%	75.0%

SPECIAL BEAM CLASSIFICATION Not Included in Other Classifications

A-2430	1500	PS52	Plain	Fanlite, Medium	45°	9°	28.5%	68.0%
A-2430	1000	PS52	Plain	Fanlite, Medium	44°	8½°	28.5%	68.0%
A-2430	1500	G48	Plain	Fanlite, Medium	42°	7°	28.5%	68.0%
A-2430	1000	G40	Plain	Fanlite, Medium	42°	5°	28.5%	68.0%
A-2016	1000	PS52	Plain	Fanlite, Medium	48°	15½°	41.0%	71.0%
A-2016	1000	G40	Plain	Fanlite, Medium	39°	10°	41.0%	71.0%
A-1419	1000	PS52	Plain	Fanlite, Medium	43°	18°	25.0%	66.5%
A-1419	500	PS40	Plain	Fanlite, Medium	45°	11°	25.0%	66.5%
A-1419	1000	G40	Plain	Fanlite, Medium	39°	11°	25.0%	66.5%
A-1419	500	G40	Plain	Fanlite, Medium	38°	8°	25.0%	66.5%
A-1419	1000	PS52	Prismatic	Fanlite, Medium	44°	30°	25.0%	66.5%
A-1016	500	PS40	Plain	Fanlite, Medium	70°	13°	15.0%	55.0%
A-1016	400	G30	Plain	Fanlite, Medium	70°	6½°	15.0%	55.0%
A-1016	250	G30	Plain	Fanlite, Medium	70°	8°	15.0%	55.0%
A-1016	500	PS40	Prismatic	Fanlite, Medium	75°	25°	15.0%	55.0%
A-1016	400	G30	Prismatic	Fanlite, Medium	70°	30°	15.0%	55.0%
A-1016	250	G30	Prismatic	Fanlite, Medium	70°	30°	15.0%	55.0%
B-1717	1000	PS52	Plain	Fanlite, Medium	45°	23°	41.0%	72.0%
B-1717	1000	G40	Plain	Fanlite, Medium	45°	16°	41.0%	72.0%
B-1313	500	PS40	Plain	Fanlite, Medium	49°	26°	42.0%	73.0%
B-1313	500	PS40	Plain	Fanlite, Wide	133°	29½°	42.0%	73.0%
B-1313	500	G40	Plain	Fanlite, Medium	41½°	19½°	42.0%	73.0%
B-1313	500	G40	Plain	Fanlite, Wide	111°	17½°	42.0%	73.0%
B-1059	200	PS30	Plain	Fanlite, Medium	46°	23°	43.0%	75.0%
B-1059	250	G30	Plain	Fanlite, Medium	44°	10°	43.0%	75.0%

Golden Glow Floodlighting Projectors

GENERAL DESCRIPTION

Golden Glow floodlighting projectors provide a complete range of units to meet the requirements of the most exacting application and for standard floodlighting purposes. All projectors are supplied with glass mirror reflectors in diameters varying from 10" to 24", and for use with lamps varying from 200 to 1500 watts.

Two general types of Golden Glow projectors are now available, to provide units particularly designed to most efficiently meet each of the widely varied requirements of present day illuminating engineering. The type A line provides equipment particularly designed to give maximum beam control, while the type B Golden Glow floodlighting equipment is the most recent development of our engineering laboratories in providing equipment of the highest beam efficiencies.

The reflectors in both type A and type B projectors are the Golden Glow glass mirror reflectors, which have been successfully used in headlight equipment for Railroad and Mine Locomotives, Electric Railway Cars, Buses and Floodlighting Projectors over a period of 14 years. Golden Glow floodlighting projectors, therefore, are backed by years of successful experience in the manufacture of glass reflectors and the design and housing of them for most efficient results.

The design and manufacture of Golden Glow reflectors have been carried to a high state of perfection in providing reflector equipment which will not tarnish, corrode or scratch and is readily kept clean. All reflectors, whether blown or pressed, are carefully processed and annealed to insure true parabolic contour, free from strains, to function most efficiently with the lamp filament for which they are designed and to withstand varying temperature changes. The back surface is silvered like the finest French plate mirror, this silvering

being protected by a heavy copper plating over same, and this heavily coated with a special metallic paint to further protect it from the effects of moisture, gases, temperature or other possible deteriorating influences.

The bodies or cases of Golden Glow projectors are pressed from one sheet of thick pure sheet aluminum, are totally enclosed and weather proof. All other body parts such as rivets, bolts and cotter pins are made of non-corrosive material.

Reflectors are resiliently mounted to prevent breakage from contraction and expansion and are held in position by spring clamps, thus avoiding the use of screws and permitting removal without tools.

Considerable research work, involving laboratory testing and actual experience in the field under service conditions has resulted in Golden Glow projectors being provided with highly heat-resistant lenses which will withstand the extreme temperature changes experienced under most severe service conditions.

Lenses and reflectors of various characteristics are available to produce a wide variety of beam patterns to meet the requirements of any application.

Glass color screens are snapped into position inside the door without the use of screws or tools. Thus a standard unit can have the color feature added or taken away, without any change whatever to the floodlight unit.

The bases for the A type projectors are made of heavy malleable iron castings hot galvanized. The B type projector bases are formed from heavy sheet steel hot galvanized.

All Golden Glow floodlighting projectors incorporate the features before described, and further details of the design and construction of the several types and sizes are described on the following pages.



Illustrated above is the Washington Building, Washington, D. C., beautifully floodlighted using Golden Glow floodlighting projectors. Sixty-three type A-1016 Golden Glow units illuminate the sides of the building and six type A-1419 units illuminate the pent house.

Golden Glow Floodlighting Projectors

GENERAL DESCRIPTION

Type A

Unilet type terminals provided for outside connection and for clamping flexible conduit, making it unnecessary to run line wires into case.

Body is made from one piece, thick pure sheet aluminum, giving maximum heat dissipation and minimum weight.

Index device for returning floodlight to original position after relamping or cleaning, thus avoiding retraining.

Forged steel fork, hot galvanized.

Take-up clamps for front door giving even compression throughout the circle.

Door hinged at bottom with "loose hinge" so as not to cause uneven compression between door and body when clamps are tightened.

Heavy malleable iron base, hot galvanized.

Universal focusing device, readily accessible by simply removing this cap. Provides accurate focusing in all directions.

Focusing device housing provided with fins to assist in radiation of heat.

Door weatherproofed by an asbestos covered rubber gasket under pressure between body and door, and special plastic cement gasket between glass and door.

Front glass held in position by spring locking ring, avoiding necessity of screws and keeping constant pressure against gasket, and provided with spring clips for inserting color screens back of front lens when desired.

Golden Glow glass mirror reflector which is highly efficient, non-corrosive, easily kept clean and will not scratch; made in four standard sizes, namely, 10-inch, 14-inch, 20-inch and 24-inch diameter.

Reflector held in position by spring clamps, avoiding use of screws and providing resilient mounting to prevent breakage due to temperature changes.



The type A Golden Glow Floodlighting Projectors listed on the following pages incorporate the general features described on page 16, and are designed particularly where beam control and accuracy in training a well defined beam pattern are of prime importance.

Focusing devices are of the universal type, permitting accurate adjustment in all directions. The focusing mechanism is accessible from the outside and may be adjusted entirely with a screw driver or coin.

An index device is mounted on the trunnion which serves to lock the unit in position after training and also to facilitate relamping and cleaning by permitting the body to be rotated and then returned to the exact original position. This is an important advantage when floodlights are installed in inaccessible locations.

Front doors are attached by means of a "loose hinge" and take-up clamps, the latter being used to assure even compression of the door against the gasket; the hinge being "loose" so as to permit this. These take-up clamps are of unique design and may be quickly adjusted. Doors are hinged at the bottom so as to permit swinging the door out of the way for cleaning and relamping.

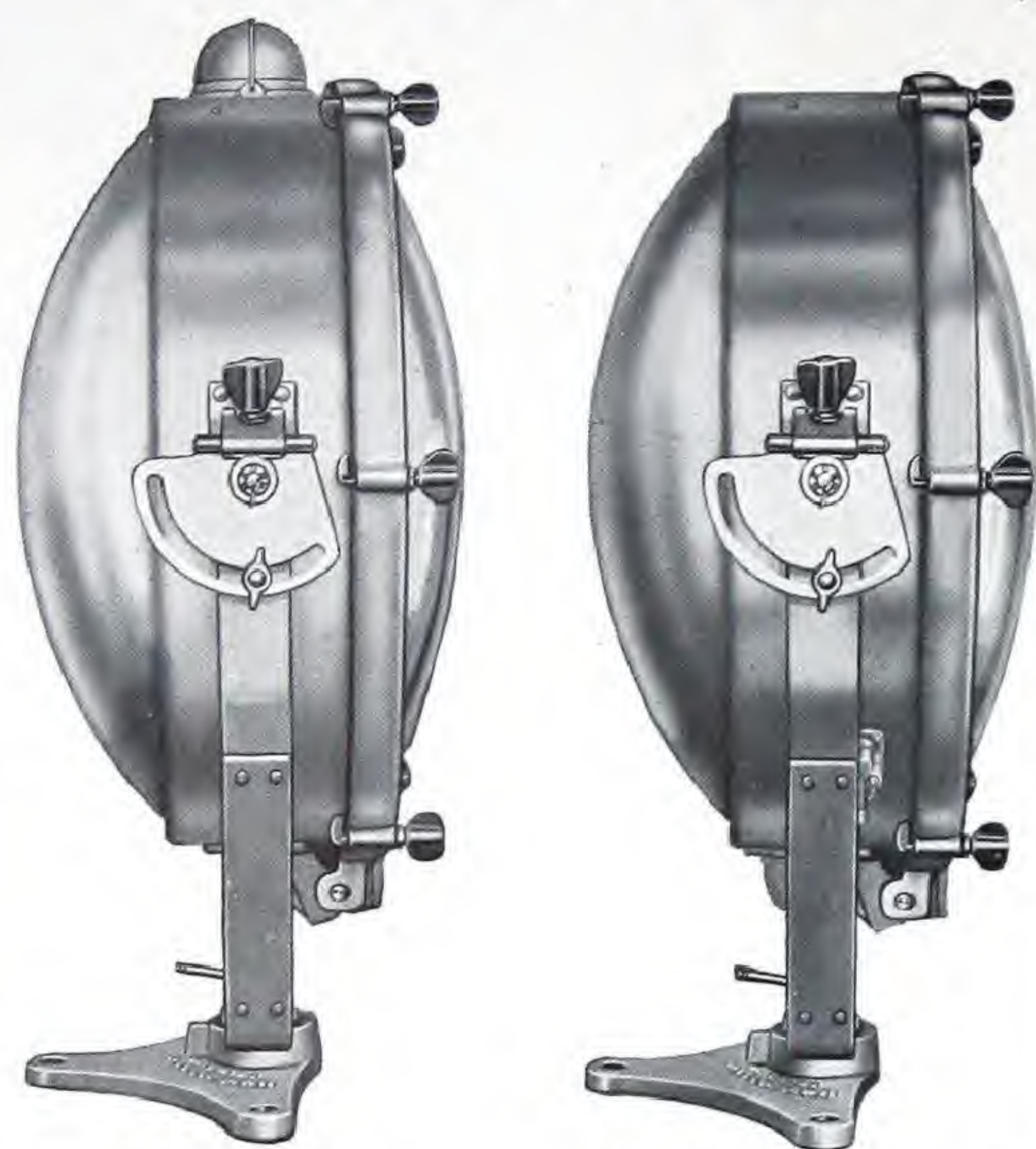
Connecting wires used inside of case are insulated with asbestos and unilet type of terminal is provided for outside connections and for clamping of flexible conduit, making it unnecessary to run wires into the case.

The features of the type A units are pictorially illustrated above and represent modern design and construction resulting from years of successful experience in providing floodlighting equipment for all purposes.

Golden Glow Floodlighting Projectors

TYPE A-2430

24-Inch Reflector, Top or Bottom Focus



No. 29000, Top Focus

No. 29704, Bottom Focus

LAMPS—For projectors with top focusing device.

- 750 watt, 115 volt, PS-52 bulb, general lighting service, No. 44917
- 1000 watt, 115 volt, PS-52 bulb, general lighting service, No. 44919
- *1500 watt, 115 volt, PS-52 bulb, general lighting service, No. 20573

For projectors with bottom focusing device.

- *1000 watt, 115 volt, G-40 bulb, l.c.l. 5 $\frac{3}{16}$ ", Floodlight Service, No. 24414
- *1500 watt, 115 volt, G-48 bulb, l.c.l. 5 $\frac{1}{4}$ ", Floodlight Service, No. 29220
- *Special unlisted National Mazda lamp.

For prices and other lamp data see page 20.

REFLECTOR—Crystal mirror plain glass reflector, 24-inch diameter, flexibly mounted, readily removed. See page 23.

FRONT LENS—Heat resisting, curved, moulded lens either plain or Fanlite as listed. See page 23.

BEAM DIVERGENCE—These projectors when fitted with a PS bulb project a beam of narrow spread. When fitted with a G bulb the beam is highly concentrated. It is essentially for long range lighting. A Fanlite lens may be used to widen the beam. See page 15.

FOCUSING DEVICE—Universal type mounted in top or bottom, as listed below.

BODY—The body is made of pure sheet aluminum with all associated parts of non-corrosive material, non-ventilated and weatherproof.

MOUNTING—Heavy swiveling trunnion with provision for firmly locking body.

TERMINALS—The terminals are of unilet type so that external leads can be connected to the terminal binding posts from the outside.

VISORS—Color screens, louvres, etc., see page 24.

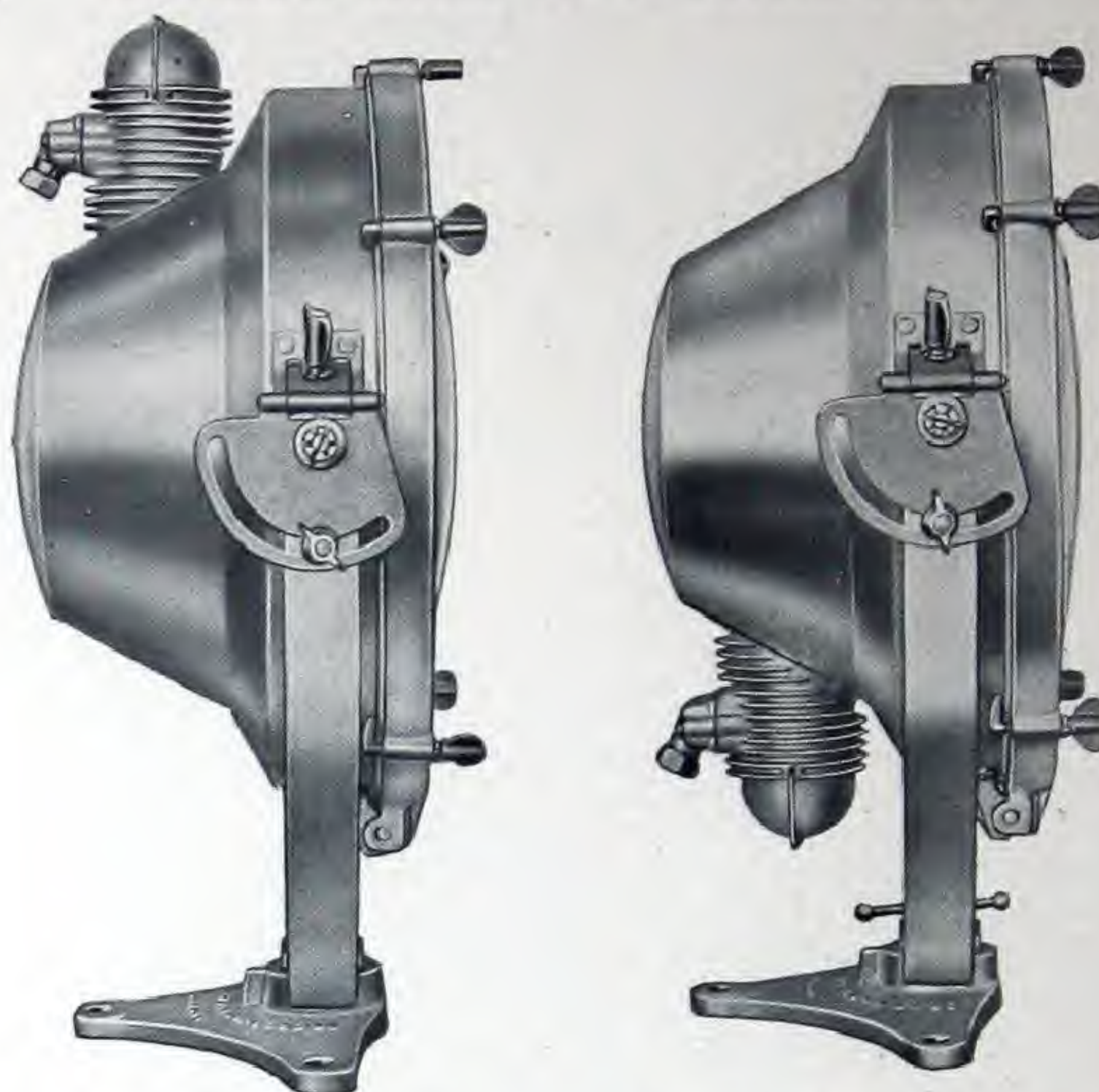
DIMENSIONS—See page 25.

Prices do not include incandescent lamps. Weight 98 lbs.

List No.	Reflector	Focusing Device Location	Lens	List Price Each
29000	24" Plain	Top	Plain	\$149.50
29703	24" Plain	Top	Fanlite Med.	149.50
29704	24" Plain	Bottom	Plain	149.50
29705	24" Plain	Bottom	Fanlite Med.	149.50

TYPE A-2016

20-Inch Reflector, Top or Bottom Focus



No. 28113, Top Focus

No. 28121, Bottom Focus

LAMPS—For projectors with top focusing device.

- 750 watt, 115 volt, PS-52 bulb, general lighting service, No. 44917
- 1000 watt, 115 volt, PS-52 bulb, general lighting service, No. 44919

For projectors with bottom focusing device.

- *1000 watt, 115 volt, G-40 bulb, l.c.l. 5 $\frac{3}{16}$ ", Floodlight Service, No. 24414

*Special unlisted National Mazda lamp.

For prices and other lamp data see page 20.

REFLECTOR—20-inch diameter, composite type, crystal glass plain mirror reflector. See page 23.

BEAM DIVERGENCE—Top focus type projectors when fitted with plain reflector and plain lens project a beam of medium spread. The beam may be widened by using a Fanlite lens. Bottom focus type projectors when fitted with plain reflector and plain lens project a beam of narrow spread. With a plain reflector and Fanlite lens the beam spread is wide. See page 15.

FRONT LENS—Heat resisting, curved, moulded lens, either plain or Fanlite as listed. See page 23.

COLOR SCREENS—Visors, louvres, etc., see page 24.

FOCUSING DEVICE—Universal focusing device mounted in top or bottom as listed below.

DOORS—Made of cast aluminum and fitted with take-up clamps so that the door can be drawn up evenly.

TERMINALS—Unilet type which provide convenient wiring connections from the outside.

DIMENSIONS—See page 25.

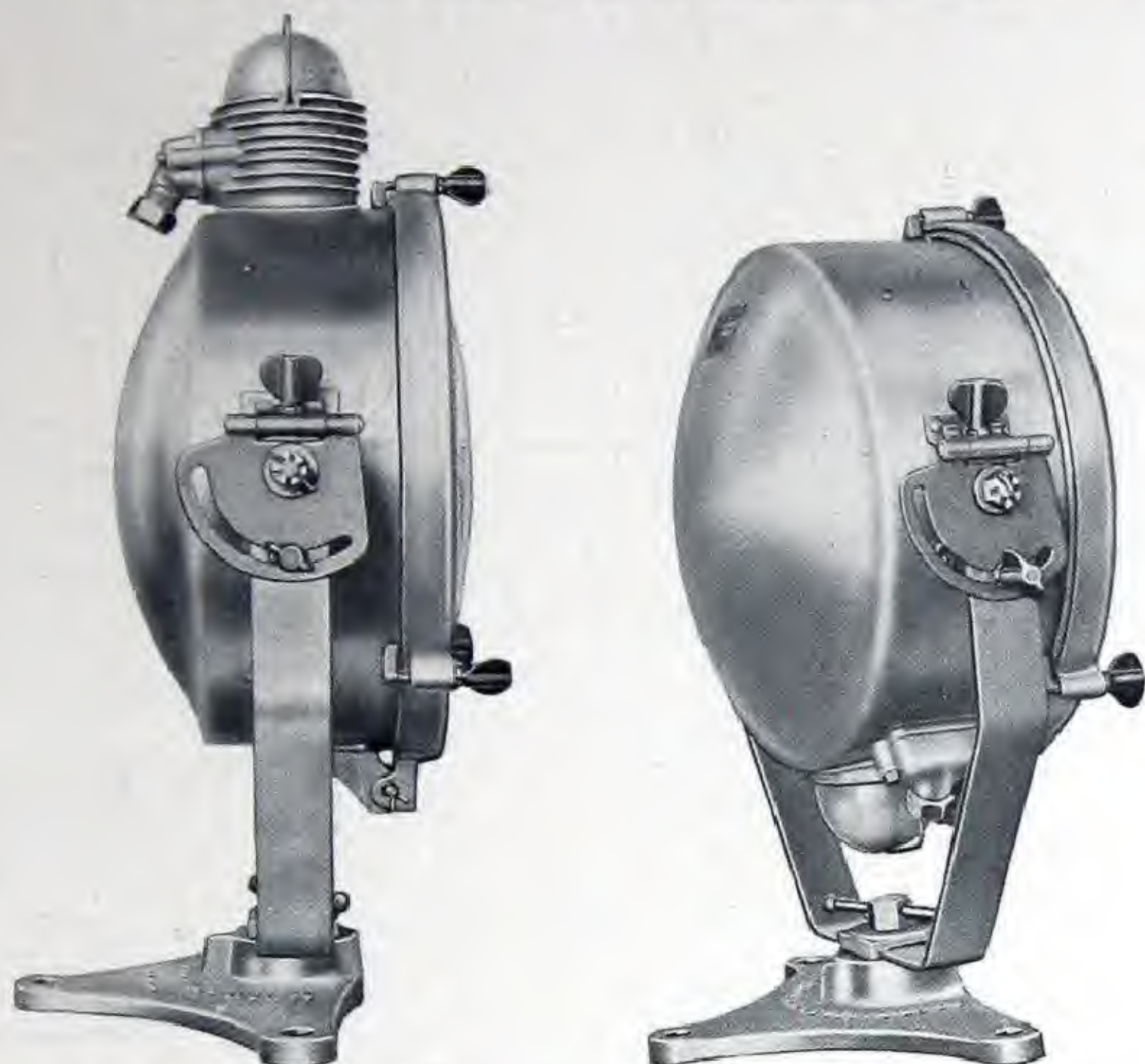
Prices do not include incandescent lamps. Weight 64 lbs.

List No.	Reflector	Focusing Device Location	Lens	List Price Each
28113	20" Plain	Top	Plain	\$112.00
28659	20" Plain	Top	Fanlite Med.	112.00
28121	20" Plain	Bottom	Plain	112.00
28698	20" Plain	Bottom	Fanlite Med.	112.00

Golden Glow Floodlighting Projectors

TYPE A-1419

14-Inch Reflector, Top or Bottom Focus



No. 27710, Top Focus

No. 27736, Bottom Focus

LAMPS—For projectors with top focusing device.

- **500 watt, 115 volt, PS-40 bulb, general lighting service, No. 22514
- 750 watt, 115 volt, PS-52 bulb, general lighting service, No. 44917
- †1000 watt, 115 volt, PS-52 bulb, general lighting service, No. 44919

For projectors with bottom focusing device.

- **500 watt, 115 volt, G-40 bulb, l.c.l. $4\frac{1}{4}$ ", Floodlight Service, No. 22133
- †*1000 watt, 115 volt, G-40 bulb, l.c.l. $5\frac{3}{16}$ ", Floodlight Service, No. 24414
- **Two extension studs necessary with this lamp.
- *Special unlisted National Mazda lamp.
- †This lamp is recommended only in cases where the beam is to remain horizontal or below horizontal.

For prices and other lamp data, see page 20.

REFLECTOR—14-inch diameter crystal glass plain or prismatic mirror reflectors. See page 23.

BEAM DIVERGENCE—Top focus type projectors when fitted with plain reflector and plain lens project a beam of medium spread. When a prismatic reflector and plain lens are used the beam spread is wide. The beam may be further widened by using a Fanlite lens. Bottom focus type projectors when fitted with plain reflector and plain lens project a beam of narrow spread. With a plain reflector and Fanlite lens the beam spread is wide. See page 15.

FRONT LENS—Heat resisting, curved, moulded lens, either plain or Fanlite as listed. See page 23.

COLOR SCREENS—Visors, louvres, etc., see page 24.

DIMENSIONS—See page 25.

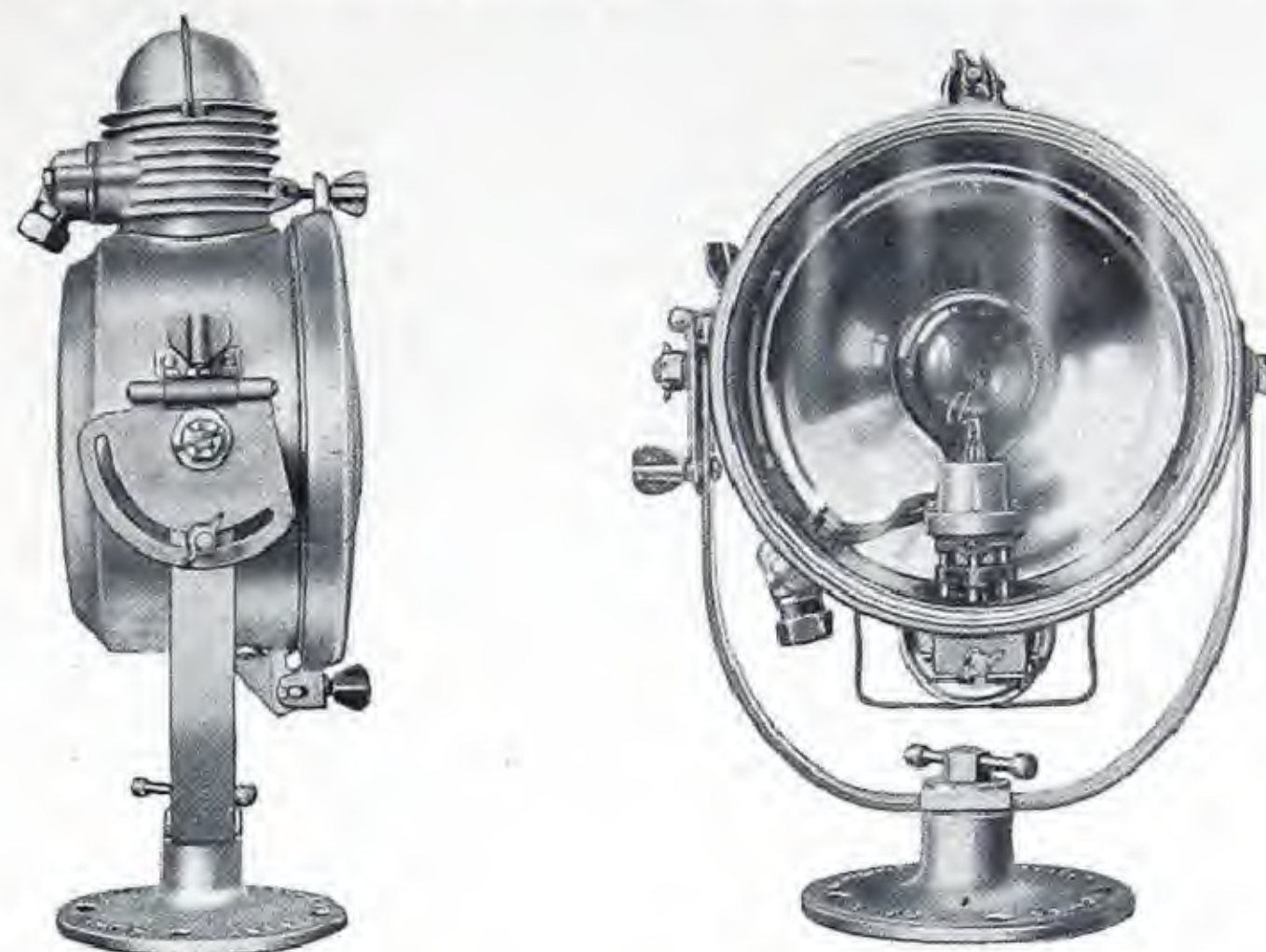
Weight, 40 lbs. each. Prices do not include lamps.

List No.	Lamp Wattage	Reflector	Focusing Device Location	Lens	List Price Each
27710	750-1000	14" Plain	Top	Plain	\$62.50
28681	750-1000	14" Prismatic	Top	Plain	62.50
28713	750-1000	14" Plain	Top	Fanlite Med.	62.50
28682	750-1000	14" Prismatic	Top	Fanlite Med.	62.50
†29471	500	14" Plain	Top	Plain	62.50
†29472	500	14" Prismatic	Top	Plain	62.50
†29473	500	14" Plain	Top	Fanlite Med.	62.50
†29474	500	14" Prismatic	Top	Fanlite Med.	62.50
†27736	500	14" Plain	Bottom	Plain	62.50
†28679	500	14" Plain	Bottom	Fanlite Med.	62.50
24403	1000	14" Plain	Bottom	Plain	62.50
24404	1000	14" Plain	Bottom	Fanlite Med.	62.50
29202	Extension stud and washer for top focus type (2 each required)				.60
24407	Extension stud and washer for bottom focus type (2 each required)				.60

†These units include extension studs necessary for use of 500 watt lamp.

TYPE A-1016

10-Inch Reflector, Top or Bottom Focus



No. 28557, Top Focus

No. 27881, Bottom Focus

LAMPS—For projectors with top focusing device.

- **200 watt, 115 volt, PS-30 bulb, general lighting service, No. 44909
- 300 watt, 115 volt, PS-35 bulb, general lighting service, No. 23356
- †500 watt, 115 volt, PS-40 bulb, general lighting service, No. 22514

For projectors with bottom focusing device.

- 250 watt, 115 volt, G-30 bulb, floodlighting service, No. 28287
- *400 watt, 115 volt, G-30 bulb, floodlighting service, No. 29353
- **Use adapter No. 44716, see page 20.
- *Special unlisted National Mazda lamp (Medium Screw Base).
- †This lamp is recommended only in cases where the beam is to remain horizontal or below horizontal.

For prices and other lamp data, see page 20.

REFLECTOR—10-inch diameter, crystal glass plain or prismatic mirror reflector. See page 23.

BEAM DIVERGENCE—Top focus type projectors when fitted with plain reflector and plain lens project a beam of medium spread. When a prismatic reflector and plain lens are used the beam spread is wide. The beam may be further widened by using a Fanlite lens. Bottom focus type projectors when fitted with plain reflector and plain lens project a beam of narrow spread. With a plain reflector and Fanlite lens the beam spread is wide. See page 15.

FRONT LENS—Heat resisting, curved, moulded lens, either plain or Fanlite as listed below. See page 23.

COLOR SCREENS—Visors, Louvres, etc., see page 24.

FOCUSING DEVICE—Universal focusing device mounted in top or bottom as listed below, accessible and provides accurate adjustment in all directions.

BODY—Pure sheet aluminum and mounted on forged swiveling steel trunnion pivoted on malleable base.

INDEX DEVICE—Provided as standard equipment to lock unit after training and to eliminate necessity of re-training when cleaning or re-lamping.

DOORS—Made of cast aluminum and fitted with take-up clamps so that the door can be drawn up evenly.

TERMINALS—Unilet type which provide convenient wiring connections from the outside.

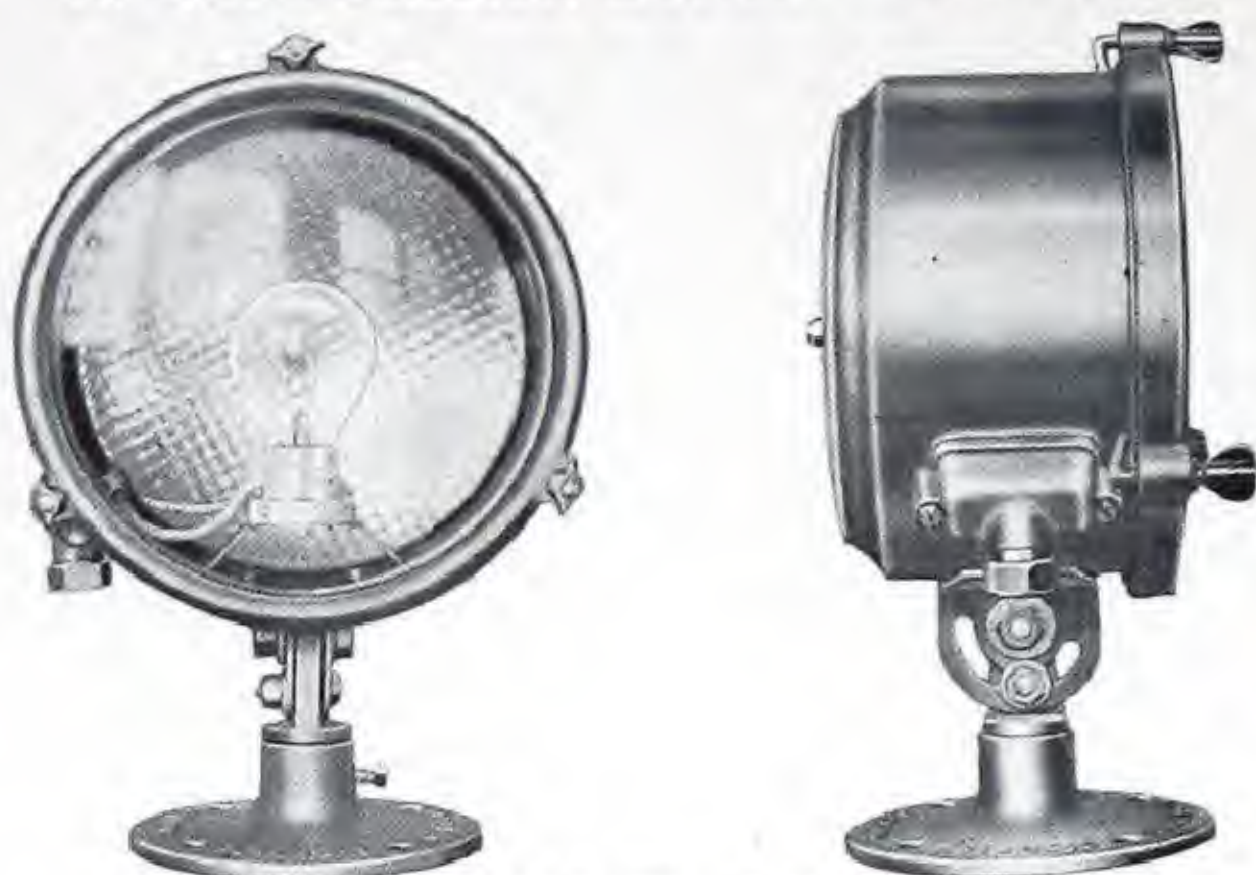
DIMENSIONS—See page 25.

Prices do not include incandescent lamps.

List No.	Reflector	Focusing Device Location	Lens	Approx. Wgt. Lbs.	List Price Each
28557	10" Plain	Top	Plain	20	\$34.00
28692	10" Prismatic	Top	Plain	20	34.00
28694	10" Plain	Top	Fanlite Med.	20	34.00
28693	10" Prismatic	Top	Fanlite Med.	20	34.00
27881	10" Plain	Bottom	Plain	20	34.00
28699	10" Plain	Bottom	Fanlite Med.	20	34.00

Golden Glow Floodlighting Projectors

TYPE A-1016
10-Inch Reflector, Bottom Fixed Focus



No. 28105, Fixed Focus

LAMPS—Unit with fixed focus at bottom.

250 watt, 115 volt, G-30 bulb, floodlighting service, No. 28287
*400 watt, 115 volt, G-30 bulb, floodlighting service, No. 29353
*Special unlisted National Mazda lamp (Medium Screw Base).
See listing of lamps on this page.

REFLECTOR—10-inch diameter, crystal glass prismatic mirror reflector. See page 23.

BEAM DIVERGENCE—These projectors when fitted with prismatic reflector and plain lens project a beam of wide spread. A more diffused beam is secured by using a Fanlite lens. See page 15.

FRONT LENS—Heat resisting, curved, moulded lens, either plain or Fanlite. See page 23.

COLOR SCREENS—Visors, Louvres, etc., see page 24.

FIXED FOCUS—No focusing device is provided, the socket being located so that reasonably accurate focus is secured if lamps as specified, are used.

BODY—Pure sheet aluminum and mounted on special base which provides adjustment in all directions.

DOORS—Made of cast aluminum without hinge but fitted with take-up clamps so that the door can be drawn up evenly.

TERMINALS—Unilet type which provide convenient wiring connections from the outside.

DIMENSIONS—See page 25.

Prices do not include incandescent lamps.

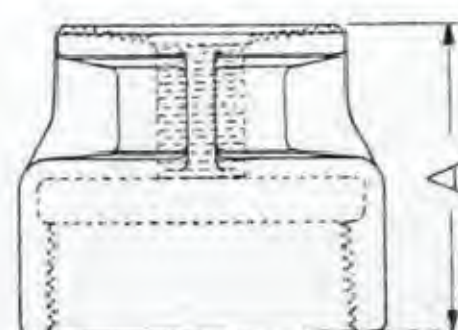
List No.	Reflector	Lens	Approx. Wgt. Lbs.	List Price Each
28105	10" Prismatic	Plain	14½	\$29.50
28704	10" Prismatic	Fanlite Med.	14½	29.50

PIPE BASES

Pipe base fittings are for mounting types A-2016, A-1419, A-1016, B-1059, B-1313 and B-1717 Golden Glow floodlight projectors (with the exception of the fixed focus type), on the top of a length of standard pipe and are tapped to receive pipe of the sizes as given in the listing. These pipe base fittings are made of malleable iron and are galvanized.



No. 29650

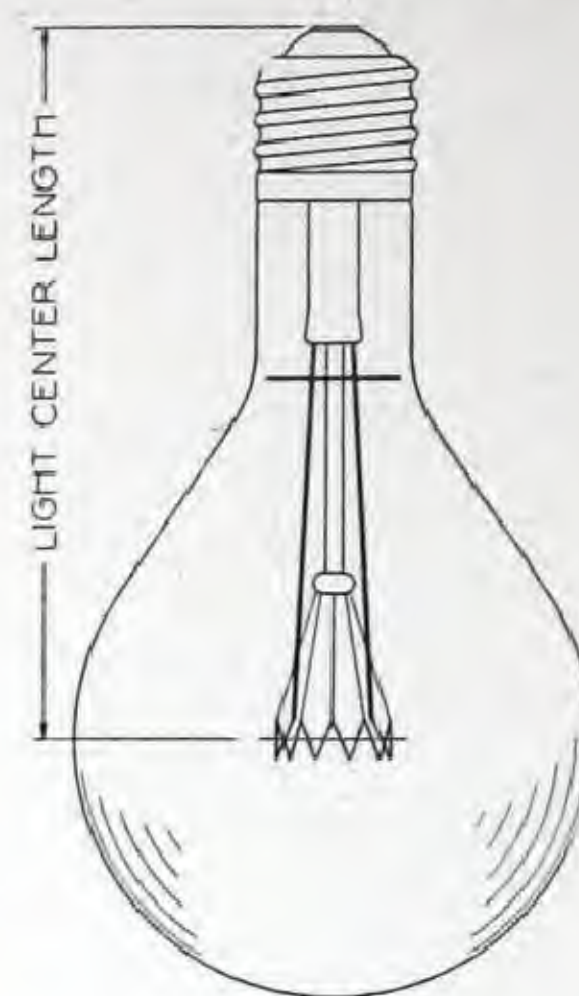


Dimension Diagram

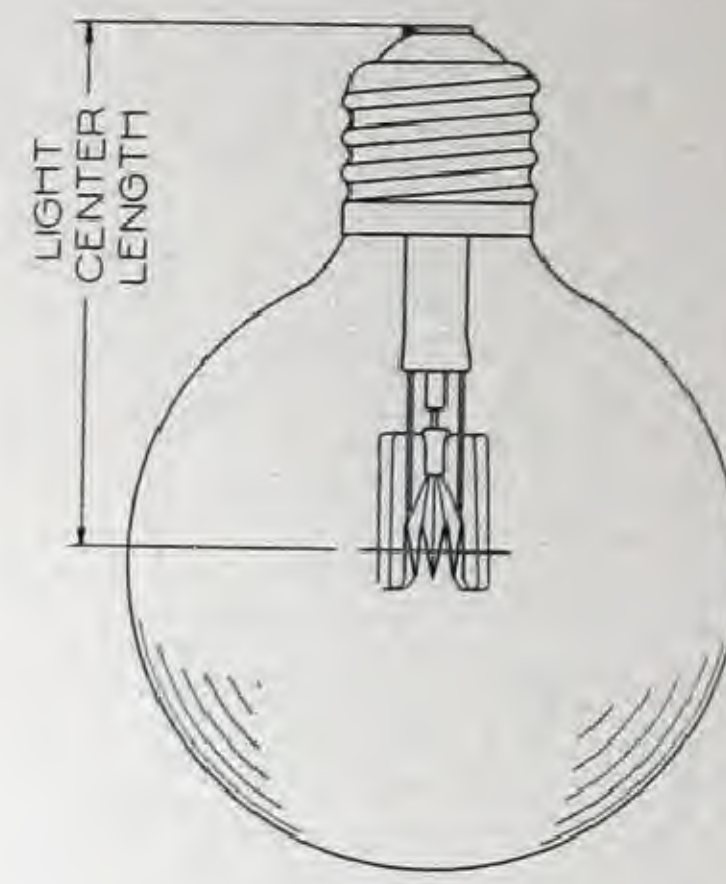
Listing below covers pipe base only; in arriving at the list price of projectors fitted with these bases, deduct the list price of the base which for types A-2016 and A-1419 is \$5.50 and for type A-1016, B-1717, B-1313 and B-1059 is \$2.75, and add the list price of the pipe base.

List No.	For Floodlight Type	Standard Pipe Tapping	Dimension A	List Price Each
29650	Pipe Base	Suitable for	1½"	\$2.75
29648	Pipe Base	A-1016, B-1059,	2"	4.50
24139	Pipe Base	B-1313 or B-1717	2½"	5.50
24140	Pipe Base		3"	5.50
29211	Pipe Base	A-1419, A-2016	2½"	5.50
29355	Pipe Base	A-1419, A-2016	3"	5.50

MAZDA LAMPS



Style PS



Style G

Mazda C incandescent lamps listed below are designed especially for use in Golden Glow floodlight projectors listed herein and for other classes of service where the source of illumination must be concentrated in a very limited space and brought to the exact focal point of the reflector.

All lamps having style PS bulb may be burned in any position, while all lamps having style G bulb can be burned in any position except within 45 degrees of the vertical base up.

List No.	Total Watts	Voltage	Style Bulb	Base	Light Centre Lgth.	Overall Lgth.	Std. Pkg.	List Price Each
44909	200	115	PS-30	Med.	6"	8½"	24	\$.80
23356	300	115	PS-35	Mog.	7"	9½"	24	1.25
22514	500	115	PS-40	Mog.	7"	9½"	12	2.00
28287	250	115	G-30	Med.	3"	5½"	24	1.75
*29353	400	115	G-30	Med.	3"	5½"	24	3.50
22133	500	115	G-40	Mog.	4¼"	7½"	12	3.25
*24414	1000	115	G-40	Mog.	5½"	7½"	12	6.75
*29220	1500	115	G-48	Mog.	5½"	8½"	12	10.00
44917	750	115	PS-52	Mog. Cl.	9½"	13½"	6	3.75
44919	1000	115	PS-52	Mog. Cl.	9½"	13½"	6	4.00
*20573	1500	115	PS-52	Mog. Cl.	9½"	13½"	6	5.75
44716	Socket adaptor of Mogul to medium base.....						100	.25

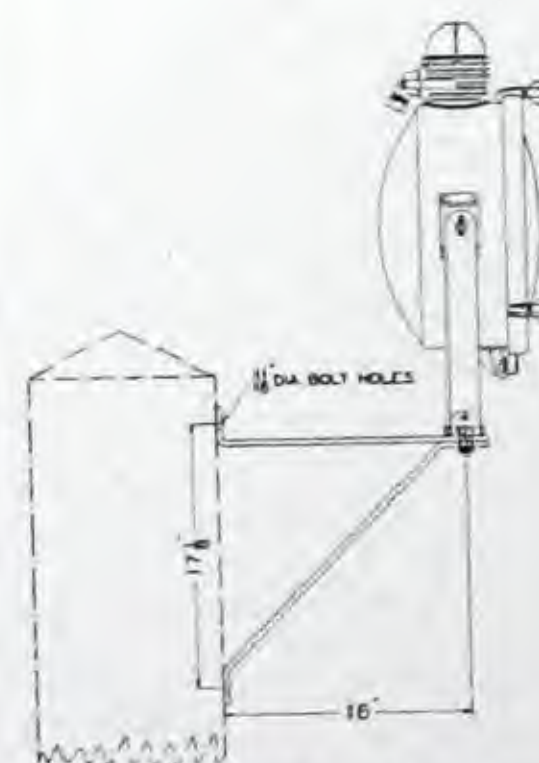
*Special unlisted National Mazda Lamps.

BRACKET SUPPORTS

These bracket supports form a convenient method of installing types A and B Golden Glow floodlight projectors and are applicable for all except the type A-2430 and the fixed focus type A-1016, Nos. 28105 and 28704.

They provide means for mounting on poles or vertical surfaces and can be attached to pipe frame work.

These brackets are made in two parts of 2" x ¾" galvanized steel welded at the joint and tapped to receive the standard base bolts used in Golden Glow floodlights.



Illustrating application of bracket support

Listing below covers bracket support only; in arriving at the list price of projectors fitted with these brackets, deduct the list price of the base which for types A-2016 and A-1419 is \$5.50 and for type A-1016, B-1717, B-1313 and B-1059 is \$2.75, and add the list price of the bracket.

List No.	List Price Each
20319	Bracket support for types A-2016 and A-1419 projectors \$6.25
29692	Bracket support for types A-1016, B-1717, B-1313 and B-1059 projectors (except Nos. 28105 and 28704)..... 6.25

Golden Glow Floodlighting Projectors

GENERAL DESCRIPTION

Type B

The body is made from one piece of thick pure sheet aluminum which insures maximum heat dissipation and minimum weight.

An external thumb screw for operating the focusing device which provides in and out adjustment and compensates for variations in lamp filaments. The range of adjustment is sufficient to properly focus the concentrated filament type G bulb or the general lighting service type PS bulb.

A lead of rubber covered weather proof twin conductor cable is provided at the rear of the unit and facilitates making electrical connections.

Rugged die formed steel fork is hot galvanized and so designed to permit tilting of the unit to any desired angle within a minimum space.

Base is formed from heavy sheet steel, hot galvanized.

Lens is mounted and sealed with plastic cement within an aluminum ring. All sizes are molded of high heat resisting glass.

The lens assembly is held rigidly to the body of the unit by a retaining ring. This ring is made of pure sheet aluminum and is fitted with a unique eccentric and spring type clamp which provides easy installation and removal without the use of tools and insures weather proof enclosure.

Golden Glow deep bowl type glass mirror reflector insures maximum lumen output, is non-corrosive, easily kept clean and will not scratch. These reflectors are supplied in type B projectors in three sizes having 17-inch, 13-inch and 10½-inch diameters.

Reflectors are held in position by spring clamps which provide a resilient mounting and prevent breakage of glassware due to severe temperature changes or vibration. No screws are used in this assembly.



The type B Golden Glow Floodlighting Projectors listed on the following pages incorporate the general features described on page 16, and have been developed to provide equipment where beam efficiency, combined with advanced mechanical construction and minimum weight, are of major importance.

Reflectors are of the composite, "deep-bowl" type glass mirrors, to encompass the maximum output of the lamps for which they are designed, being resiliently mounted by spring supports to the sheet aluminum housing.

Focusing devices are of the one way type, located at the back of the units. A knurled nut, readily accessible on the exterior of the unit, provides for focusing the lamp, without tools.

A 2-foot weatherproof cable is provided thru a weather-

proof stuffing box, enabling the electrical connection to be completed by a simple splice outside the unit.

The door frame, holding the convex heat-resisting lens, is of advanced design, being made of a sheet aluminum ring, closed with a spring type latch, insuring a tight, weatherproof fit.

Mounting fork, of steel, is provided of such design to permit of training the unit straight up, where certain applications require such training of the light.

The features of the type B units are pictorially illustrated above and represent the latest improvements in design and construction resulting from years of successful experience in providing floodlighting equipment for all purposes.

Golden Glow Floodlighting Projectors

TYPE B-1717
17-Inch Reflector



No. 52916

LAMPS—

750 watt, 115 volt, PS-52 bulb, General lighting service No. 44917.
1000 watt, 115 volt, PS-52 bulb, General lighting service No. 44919.
*1000 watt, 115 volt, G-40 bulb, Floodlight service No. 24414.
*Special unlisted National Mazda lamp.
For prices and other lamp data see page 20.

REFLECTOR—Crystal mirror plain glass reflector, 17-inch diameter flexibly mounted, readily removed. See page 23.

FRONT LENS—Heat resisting curved, moulded lens, either plain, Fanlite Medium or Diffusing as listed. See page 23.

BEAM DIVERGENCE—When used with PS bulb and fitted with plain lens, floodlight projects a beam of medium spread. The beam can be widened by using a Fanlite Medium lens. By use of diffusing lens, the beam can be still further widened in all directions. When used with G bulb and fitted with plain lens, floodlight projects a beam of narrow spread which can be widened by using a Fanlite Medium lens. See page 15.

FOCUSING DEVICE—In and out thumb screw adjustment in back.

BODY—The body is made of pure sheet aluminum with all associated parts of non-corrosive material, non-ventilated and weatherproof.

MOUNTING—Heavy swiveling trunnion with provision for firmly locking body.

WIRING CONNECTIONS—Cable leads connected to the lamp receptacle, are brought out the back of the body thru a water tight stuffing box.

COLOR SCREENS—Visors, Louvres, etc., see page 24.

DIMENSIONS—See page 25.

WEIGHT—39 lbs.

Prices do not include lamps.

List No.	Lens	List Price Each
52916	Plain	\$62.50
52917	Fanlite, Medium	62.50
52918	Diffusing	62.50

TYPE B-1313
13-Inch Reflector



No. 52919

LAMPS—

300 watt, 115 volt, PS-35 bulb, general lighting service No. 23356.
500 watt, 115 volt, PS-40 bulb, general lighting service No. 22514.
500 watt, 115 volt, G-40 bulb, floodlight service No. 22133.
For prices and other lamp data see page 20.

REFLECTOR—Crystal mirror plain glass reflector, 13-inch diameter flexibly mounted, readily removed. See page 23.

FRONT LENS—Heat resisting curved, moulded lens, either plain, Fanlite Medium, Fanlite Wide or Diffusing as listed. See page 23.

BEAM DIVERGENCE—When used with PS bulb and fitted with plain lens, floodlight projects a beam of medium spread. The beam can be widened by using a Fanlite Medium lens and still further widened by using a Fanlite Wide lens. By use of a diffusing lens the beam can be widened in all directions. When used with G bulb and fitted with plain lens, floodlight projects a beam of medium spread which can be widened by using a Fanlite Medium lens and still further widened by using a Fanlite Wide lens. See page 15.

FOCUSING DEVICE—In and out thumb screw adjustment in back.

BODY—The body is made of pure sheet aluminum with all associated parts of non-corrosive material, non-ventilated and weatherproof.

MOUNTING—Heavy swiveling trunnion with provision for firmly locking body.

WIRING CONNECTIONS—Cable leads connected to the lamp receptacle, are brought out the back of the body thru a water tight stuffing box.

COLOR SCREENS—Visors, Louvres, etc., see page 24.

DIMENSIONS—See page 25.

WEIGHT—23 lbs.

Prices do not include lamps.

List No.	Lens	List Price Each
52919	Plain	\$43.50
52920	Fanlite, Medium	43.50
52921	Fanlite, Wide	43.50
52922	Diffusing	43.50

Golden Glow Floodlighting Projectors

TYPE B-1059

10½-Inch Reflector



No. 52923

LAMPS—

200 watt, 115 volt, PS-30 bulb, general lighting service No. 44909
250 watt, 115 volt, G-30 bulb, floodlighting service No. 28287
For prices and other lamp data see page 20.

REFLECTOR—Crystal mirror plain glass reflector, 10½-inch diameter, flexibly mounted, readily removed. See page 23.

FRONT LENS—Heat resisting, curved, moulded lens, either plain, Fanlite Medium or Diffusing as listed. See page 23.

BEAM DIVERGENCE—When used with PS bulb and fitted with plain lens, floodlight projects a beam of medium spread. The beam can be widened by using a Fanlite Medium lens. By use of a diffusing lens, the beam can be still further widened in all directions. When used with G bulb and fitted with plain lens, floodlight projects a beam of narrow spread which can be widened by using a Fanlite Medium lens. See page 15.

FOCUSING DEVICE—In and out thumb screw adjustment in back.

BODY—The body is made of pure sheet aluminum with all associated parts of non-corrosive material, non-ventilated and weatherproof.

MOUNTING—Heavy swiveling trunnion with provision for firmly locking body.

WIRING CONNECTIONS—Cable leads connected to the lamp receptacle, are brought out the back of the body thru a water tight stuffing box.

COLOR SCREENS—Visors, Louvres, etc., see page 24.

DIMENSIONS—See page 25.

WEIGHT—10 lbs.

Prices do not include lamps.

List No.	Lens	List Price Each
52923	Plain	\$23.50
52924	Fanlight, Medium	23.50
52925	Diffusing	23.50

LENSES



Clear glass lenses listed below are designed for use with Golden Glow floodlights and are made from specially annealed, moulded heat resisting glass. Several fanlite angle lenses and diffusing lenses are for use where greater spread of beam is desired and are interchangeable with standard plain lenses.

Prices of plastic cement gaskets for type A floodlights are listed separately below, while prices of lenses for type B floodlights include necessary gasket and retaining ring, completely assembled with lens.

List No.		Approx. O.D.	List Price Each
For Type A-2430 Floodlights			
28930	Curved moulded lens, plain clear.....	25½"	\$32.50
27518	Curved moulded lens, fanlite medium angle, clear.....	25½"	32.50
28979	Plastic cement gasket.....		.60
For Type A-2016 Floodlights			
28545	Curved moulded lens, plain clear.....	22"	13.50
28652	Curved moulded lens, fanlite medium angle, clear.....	22"	13.50
28638	Plastic cement gasket.....		.50
For Type A-1419 Floodlights			
28598	Curved moulded lens, plain clear.....	16"	7.00
28683	Curved moulded lens, fanlite medium angle, clear.....	16"	7.00
28636	Plastic cement gasket.....		.40
For Type A-1016 Floodlights			
18691	Curved moulded lens, plain clear.....	10¾"	3.30
28680	Curved moulded lens, fanlite medium angle, clear.....	10¾"	3.30
28633	Plastic cement gasket.....		.30
For Type B-1717 Floodlights			
53022	Curved moulded lens, plain clear.....	18¾"	10.50
53023	Curved moulded lens, fanlite medium angle, clear.....	18¾"	10.50
53024	Curved moulded lens, diffusing clear.....	18¾"	10.50
For Type B-1313 Floodlights			
53025	Curved moulded lens, plain clear.....	14¾"	7.50
53026	Curved moulded lens, fanlite medium angle, clear.....	14¾"	7.50
53027	Curved moulded lens, fanlite wide angle, clear.....	14¾"	7.50
53028	Curved moulded lens, diffusing clear.....	14¾"	7.50
For Type B-1059 Floodlights			
53029	Curved moulded lens, plain clear.....	11½"	5.50
53030	Curved moulded lens, fanlite medium angle, clear.....	11½"	5.50
53031	Curved moulded lens, diffusing clear.....	11½"	5.50
49935	Plastic cement (in bulk) per lb.....		.80

REFLECTORS

Golden Glow mirror glass reflectors hereinafter listed are suitable for use with the types A and B Golden Glow floodlighting projectors. These reflectors are made of the best quality glass and polished by means of a patented process. They are thoroughly annealed, with the silvering protected by a heavy copper plating and special protective finish.

27567	Glass mirror reflector, plain crystal, 24-inch diameter for A-2430 projector.....	\$52.00
29951	Glass mirror reflector, plain crystal, 20-inch diameter for A-2016 projector.....	42.00
20541	Glass mirror reflector, plain crystal, 14-inch diameter for A-1419 projector.....	26.25
27565	Glass mirror reflector, prismatic crystal, 14-inch diameter for A-1419 projector.....	26.25
28000	Glass mirror reflector, plain crystal, 10-inch diameter for A-1016 projector.....	11.25
28564	Glass mirror reflector, prismatic crystal, 10-inch diameter for A-1016 projector.....	11.25
52201	Glass mirror reflector, plain crystal, 17-inch diameter for B-1717 projector.....	26.25
52064	Glass mirror reflector, plain crystal, 13-inch diameter for B-1313 projector.....	19.00
52866	Glass mirror reflector, plain crystal, 10½-inch diameter for B-1059 projector.....	14.00

Golden Glow Floodlighting Projectors

COLOR SCREENS



Color Screens snap into place behind the front lens



Typical Color Screen

Color screens listed below are designed for use with all types of Golden Glow floodlight projectors before described. They are made of a special grade glass of high light transmission value designed for the purpose and which will retain its color qualities for an indefinite period.

These screens are placed in back of the regular projector lens and can be inserted or removed without interfering with the front lens.

Two snap spring holding rings are supplied with each color screen and included in the prices below.

List No.	For Type A-2430 Floodlights	List Price Each
24186	Red color screen, complete.....	\$48.00
24187	Amber color screen, complete.....	48.00
24188	Blue color screen, complete.....	48.00
24189	Green color screen, complete.....	48.00

	For Type A-2016 Floodlights	
28654	Red color screen, complete.....	22.00
28655	Amber color screen, complete.....	22.00
28656	Blue color screen, complete.....	22.00
28657	Green color screen, complete.....	22.00

	For Type A-1419 Floodlights	
28684	Red color screen, complete.....	10.50
28685	Amber color screen, complete.....	10.50
28687	Blue color screen, complete.....	10.50
28686	Green color screen, complete.....	10.50

	For Type A-1016 Floodlights	
28688	Red color screen, complete.....	6.50
28116	Amber color screen, complete.....	6.50
28690	Blue color screen, complete.....	6.50
28689	Green color screen, complete.....	6.50

	For Type B-1717 Floodlights	
52934	Red color screen, complete.....	14.00
52935	Amber color screen, complete.....	14.00
52936	Blue color screen, complete.....	14.00
52937	Green color screen, complete.....	14.00

	For Type B-1313 Floodlights	
52938	Red color screen, complete.....	6.50
52939	Amber color screen, complete.....	6.50
52940	Blue color screen, complete.....	6.50
52941	Green color screen, complete.....	6.50

	For Type B-1059 Floodlights	
52942	Red color screen, complete.....	6.00
52943	Amber color screen, complete.....	6.00
52944	Blue color screen, complete.....	6.00
52945	Green color screen, complete.....	6.00

LOUVRES



Type A-1419 Floodlight fitted with Louvre



No. 29835

Circular louvres are used in connection with floodlights where it is desired to eliminate all stray light, leaving only the main beam. By this method absolute control of the light output of the unit is secured by maintaining all of the light flux within the beam limit.

Golden Glow louvres consist of a series of concentric sheet steel rings so designed and located that the maximum amount of light will be retained. These rings are mounted on wire supports and a wire ring in such a way that the complete louvre can be snapped into position in the front door, back of the front lens, and may be readily removed without the use of tools.

List No.		List Price Each
28352	Louvre for type A-2430 Golden Glow projector.....	\$12.50
28367	Louvre for type A-2016 Golden Glow projector.....	10.00
29835	Louvre for type A-1419 Golden Glow projector.....	8.00
29985	Louvre for type A-1016 Golden Glow projector.....	6.00
52951	Louvre for type B-1717 Golden Glow projector.....	9.00
52950	Louvre for type B-1313 Golden Glow projector.....	7.50
52949	Louvre for type B-1059 Golden Glow projector.....	6.50

VISORS



Visors listed below are for use in connection with types A-2430, A-2016, A-1419, A-1016, B-1059, B-1313 and B-1717 Golden Glow floodlight projectors before listed.

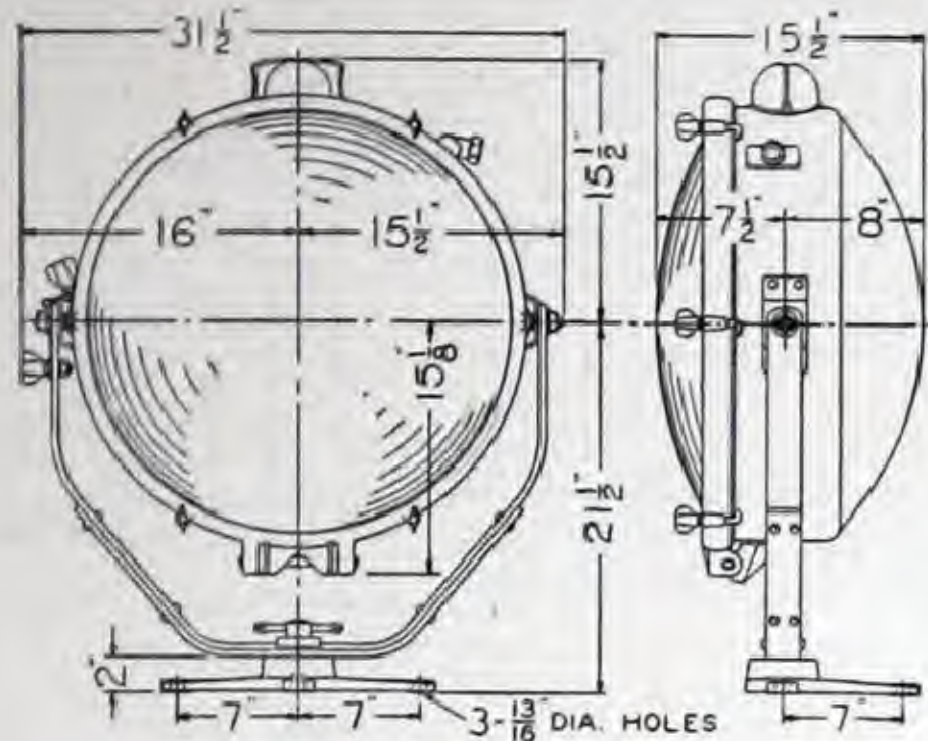
These visors are made of sheet aluminum and clamp into position over the edge of the door as illustrated and therefore may be attached or removed without the use of tools. Being made of aluminum they will not corrode and are light in weight.

List No.		List Price Each
29953	Visor for type A-2430 floodlights.....	\$7.50
29305	Visor for type A-2016 floodlights.....	6.00
29273	Visor for type A-1419 floodlights.....	4.80
29287	Visor for type A-1016 floodlights.....	3.80
52946	Visor for type B-1717 floodlights.....	6.00
52947	Visor for type B-1313 floodlights.....	4.80
52948	Visor for type B-1059 floodlights.....	4.00

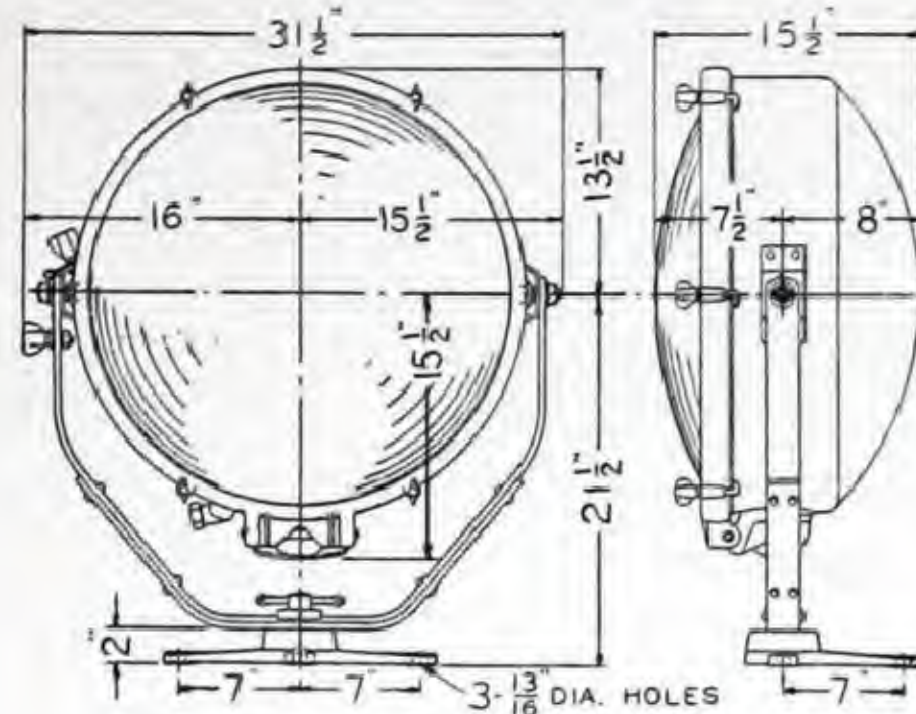
Golden Glow Floodlighting Projectors

DIMENSION DIAGRAMS

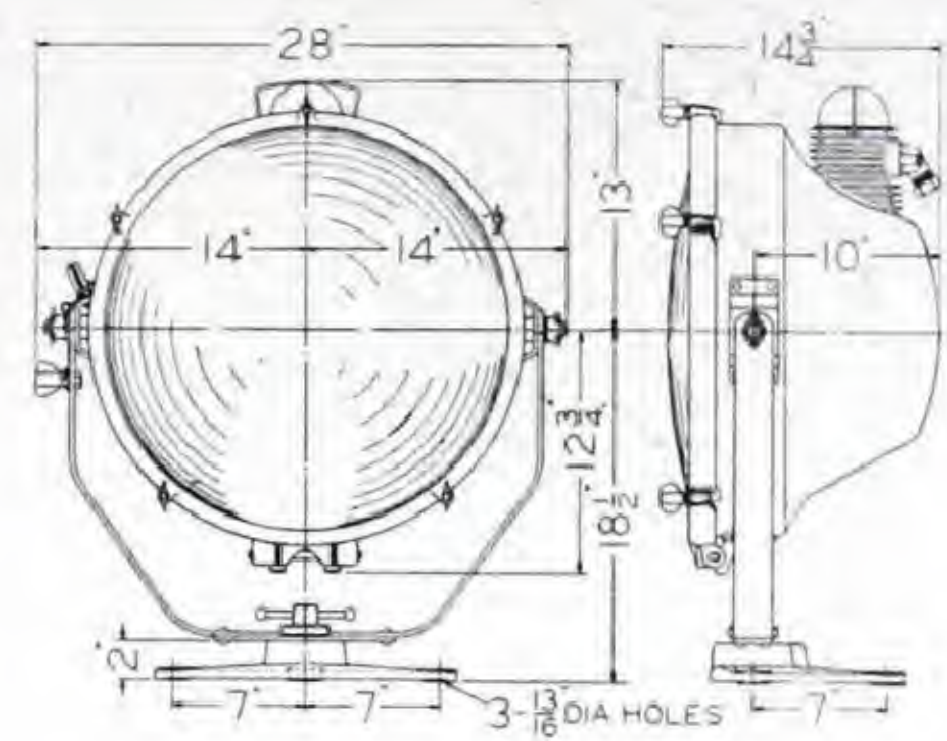
Type A Projectors



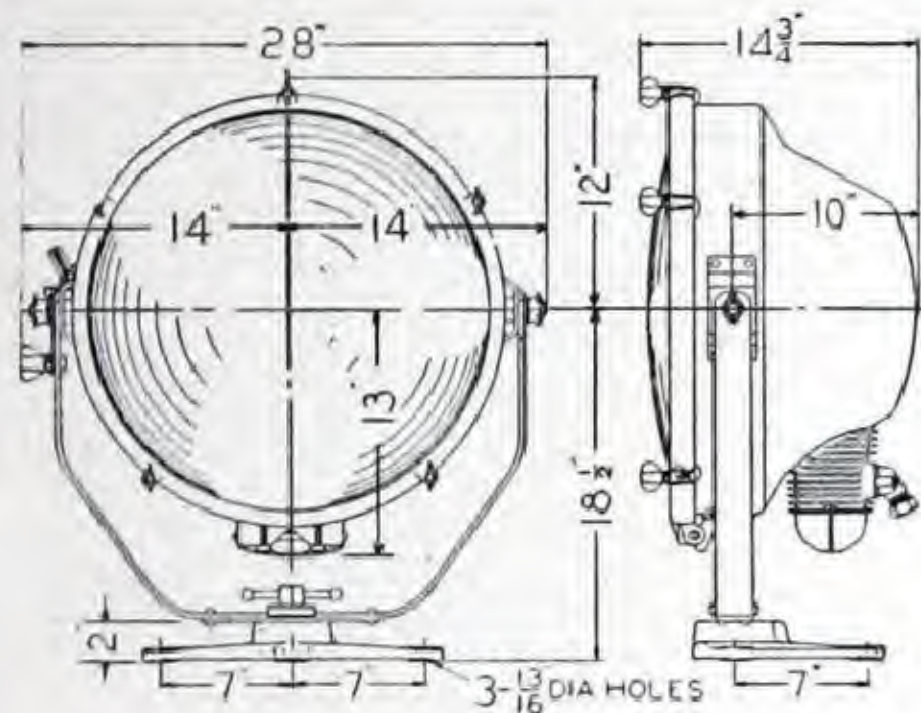
Type A-2430, Top Focus



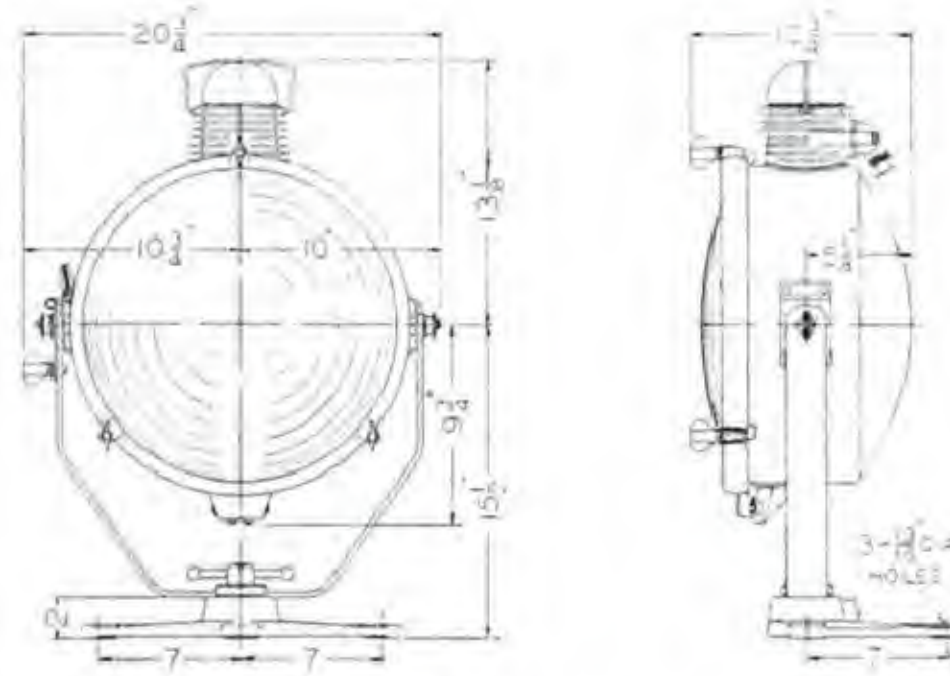
Type A-2430, Bottom Focus



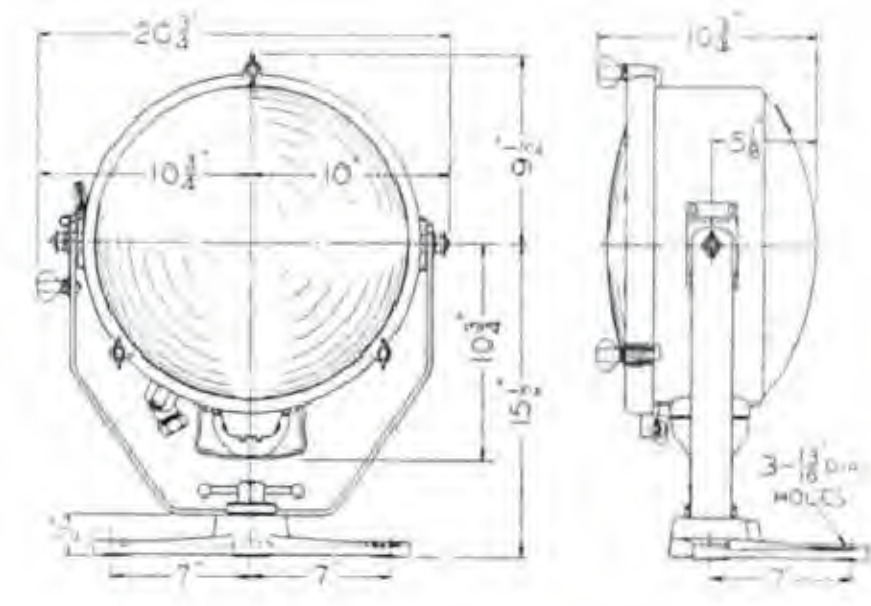
Type A-2016, Top Focus



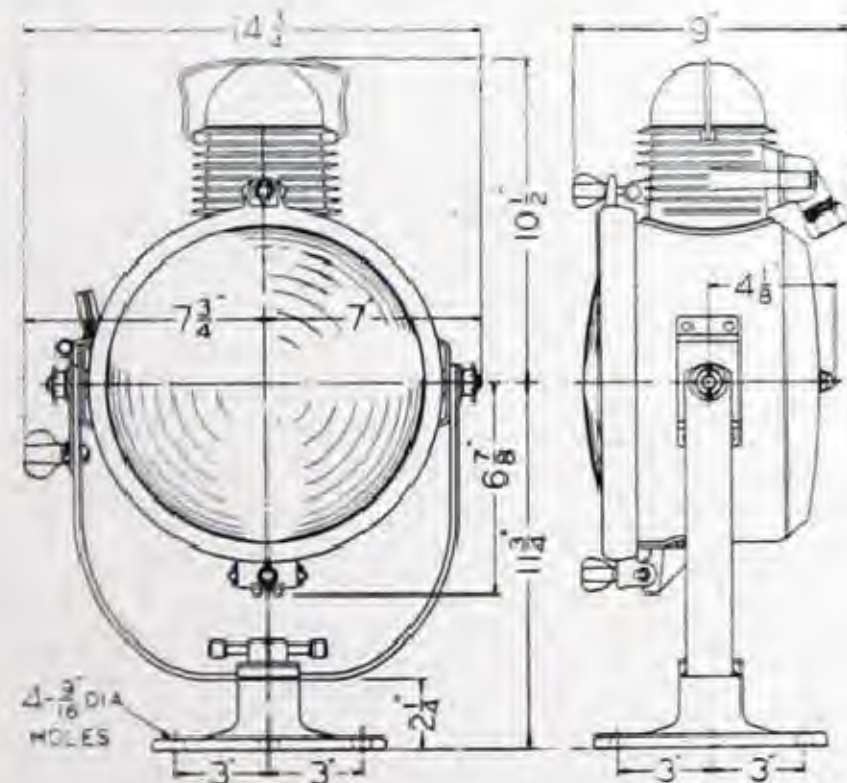
Type A-2016, Bottom Focus



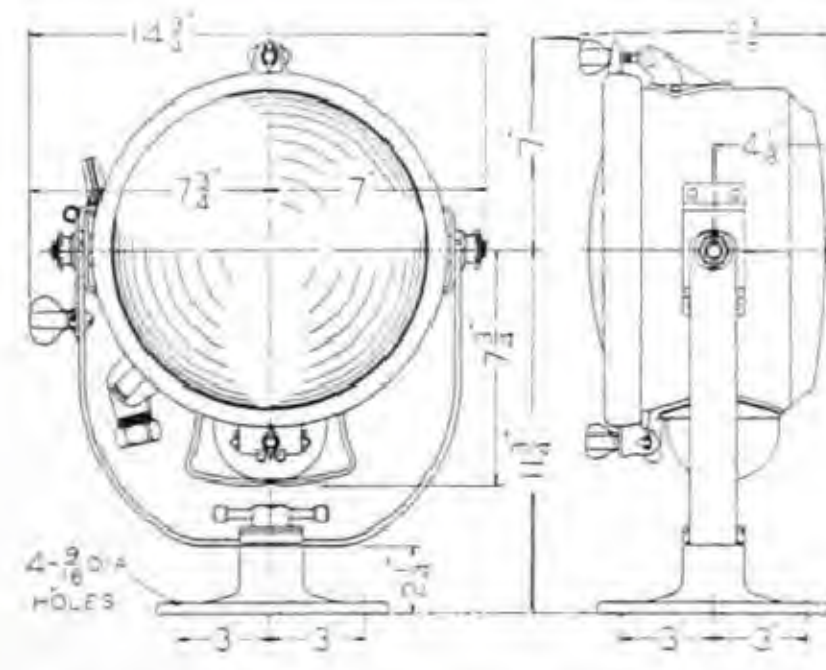
Type A-1419, Top Focus



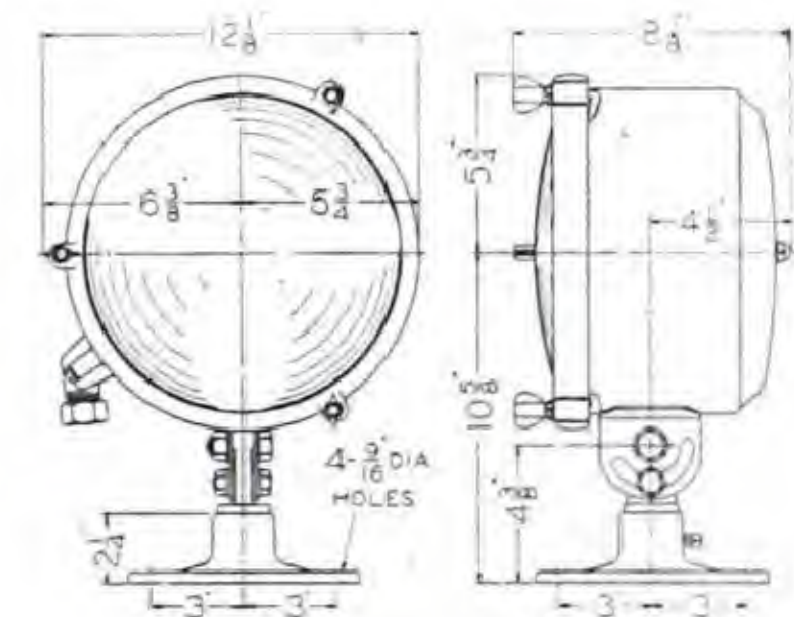
Type A-1419, Bottom Focus



Type A-1016, Top Focus

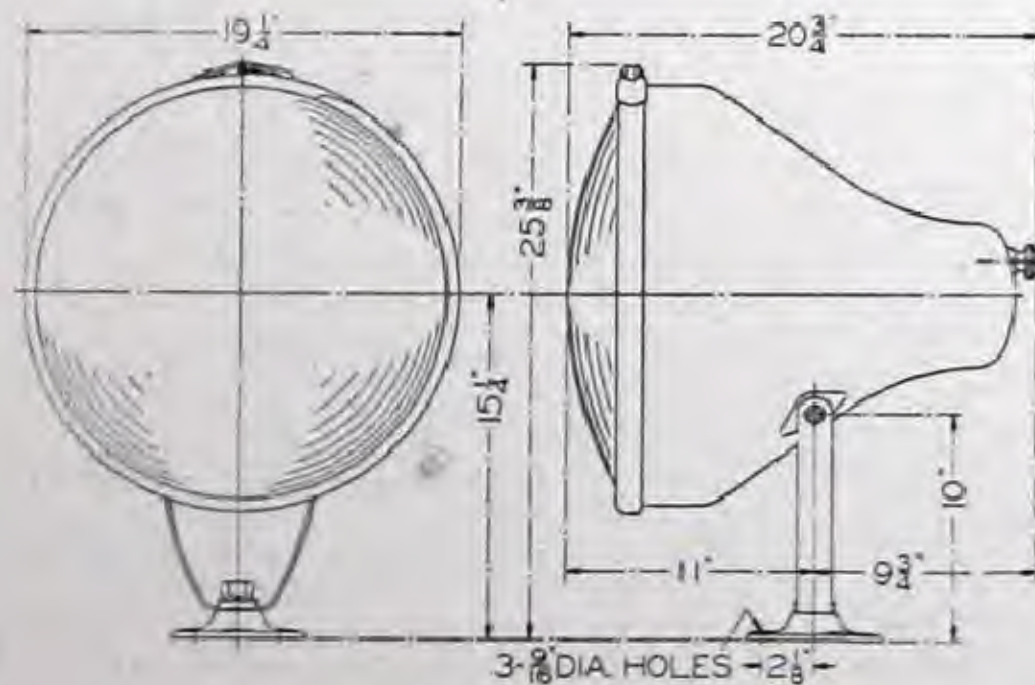


Type A-1016, Bottom Focus

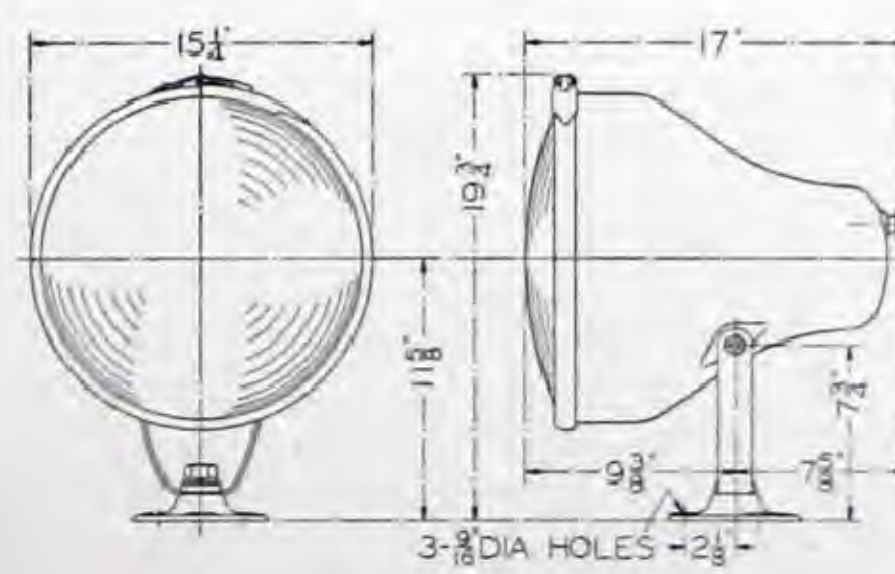


Type A-1016, Fixed Focus

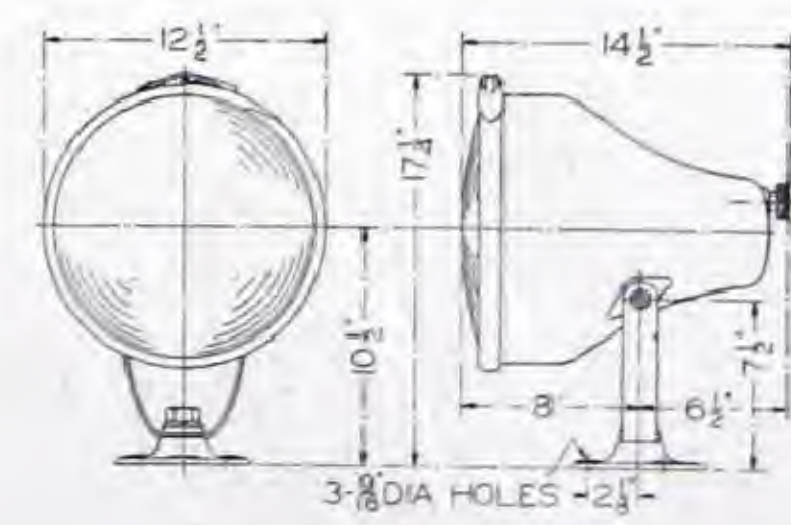
Type B Projectors



Type B-1717



Type B-1315



Type B-1059

Keystone Floodlights

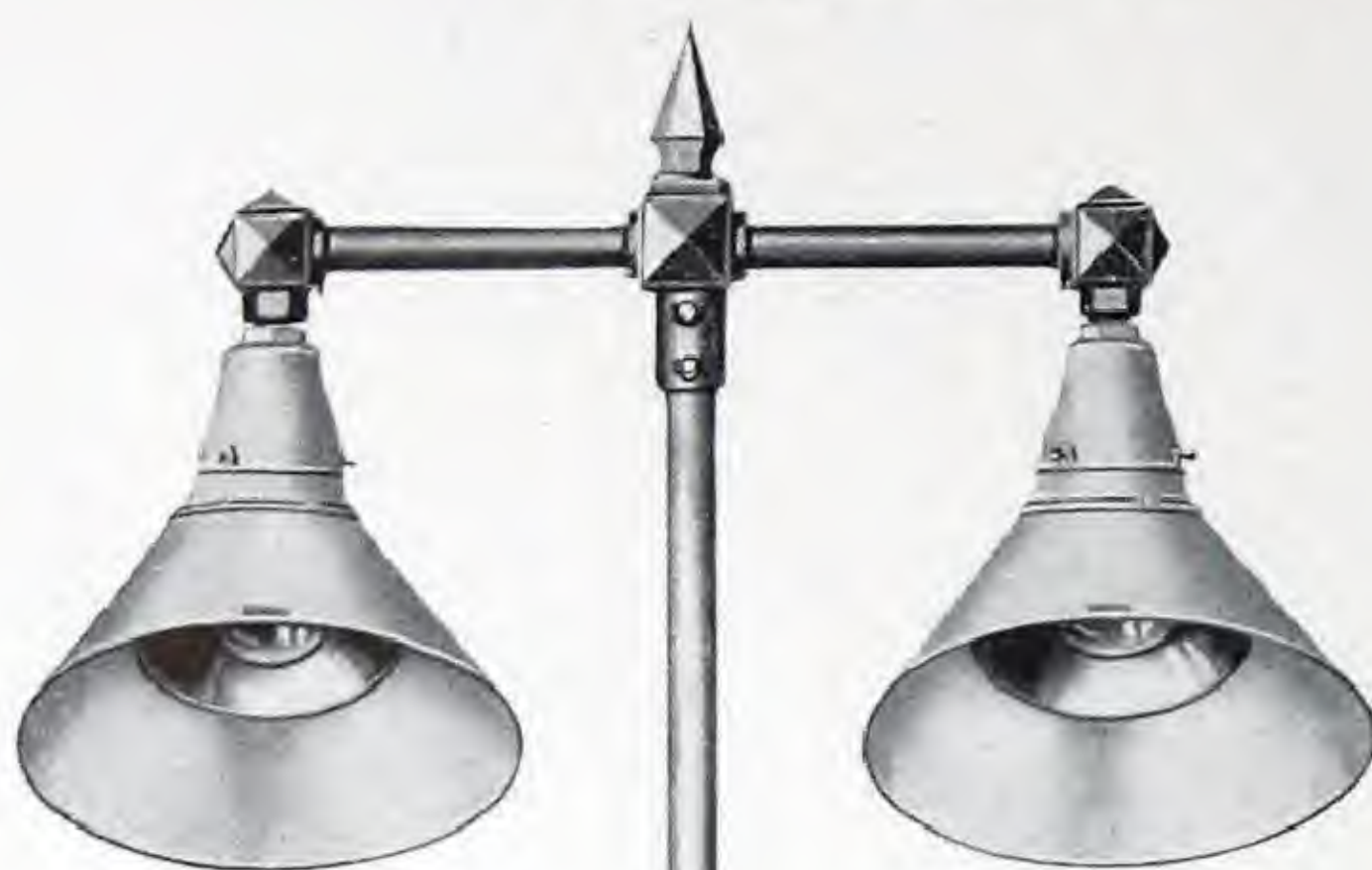


Illustration Showing Typical Assembly of

- 2 No. 25004 Type O-18 Keystone Floodlights.
- 1 No. 25027 Double Bracket.
- 1 No. 25024 Pipe Standard.
- 1 No. 25028 Ornamental Base.



Illustration Showing Typical Assembly of

- 1 No. 25004 Type O-18 Keystone Floodlight.
- 1 No. 25025 Single Bracket.
- 1 No. 25024 Pipe Standard.
- 1 No. 25028 Ornamental Base.



Keystone Floodlights

TYPE O-18



Keystone Floodlights listed below provide short-range wide-angle floodlight equipment especially designed for application where it is necessary to cover considerable area from a location close to the surface to be lighted.

APPLICATIONS—They are particularly adapted to the illumination of gasoline service stations, parking areas, recreational areas, including miniature golf courses, football fields, baseball fields, tennis courts, swimming pools, skating rinks, amusement parks, beaches and similar areas, also buildings not higher than the mounting height of the unit.

LAMPS—For floodlights, Nos. 24965, 25004 and 51929.

300 watt, 115 volt, PS-35 bulb, general lighting service, No. 23356.

500 watt, 115 volt, PS-40 bulb, general lighting service, No. 22514.

For floodlight No. 51930.

750 watt, 115 volt, PS-52 bulb, general lighting service, No. 44917.

1000 watt, 115 volt, PS-52 bulb, general lighting service, No. 44919.

See listing of lamps on page 20.

CONSTRUCTION—All units listed consist of a heavy-gauge sheet metal skirt which is riveted to a cast aluminum ring; this assembly being secured to a cast aluminum socket housing with set screws. A device is supplied which makes it possible to change the horizontal position of the units for cleaning or relamping and then return them to the exact original position. The top of the cast aluminum housing is tapped for $\frac{3}{4}$ -inch pipe. Exterior surface is painted aluminum.

No. 24965 floodlight is made with skirt of sheet steel, the inner surface of which is sprayed with a special aluminum paint having highest reflecting characteristics combined with absence of glare, with a surface that will not readily accumulate a film of dust or dirt, which would tend to impair its reflecting qualities.

No. 25004 is made with a skirt of sheet steel with a polished chrome steel (non-tarnishing) reflector, spot-welded to the skirt, to provide more efficient and durable reflecting surface.

Nos. 51929 and 51930 are both made with sheet aluminum skirts, the interior reflecting surface being mat finish. The size of the top socket housing differs in these types.

List No.	Construction	Reflecting Surface	Lamp Wattages	Di- men- sion A-Ins.	Wgt. Lbs.	List Price Each
24965	Sheet Steel	Painted Alum.	300- 500	5 $\frac{1}{8}$	7 $\frac{1}{2}$	\$20.00
25004	Sheet Steel	Chrome Steel	300- 500	5 $\frac{1}{8}$	7 $\frac{1}{2}$	25.00
51929	Aluminum	Mat Finish	300- 500	5 $\frac{1}{8}$	6	21.50
51930	Aluminum	Mat Finish	750-1000	7 $\frac{5}{8}$	6	21.50



SUPPORTS FOR TYPE O-18

Pipe standards, brackets and ornamental bases used for supporting the type O-18 Keystone floodlight are described below and dimensional cuts of typical assemblies are shown on the preceding page.

The No. 25024 pipe standard is supplied in one length, assembled from three sections of 3-inch, 2 $\frac{1}{2}$ -inch and 2-inch pipe respectively, welded together to insure adequate strength and pleasing appearance. Total length is 22 feet, which allows for one end being placed 3 feet below ground level to give an overall height above ground of 19 feet. A $\frac{3}{4}$ -inch pipe tapped hole is provided 3 feet 9 inches from bottom end for wiring.

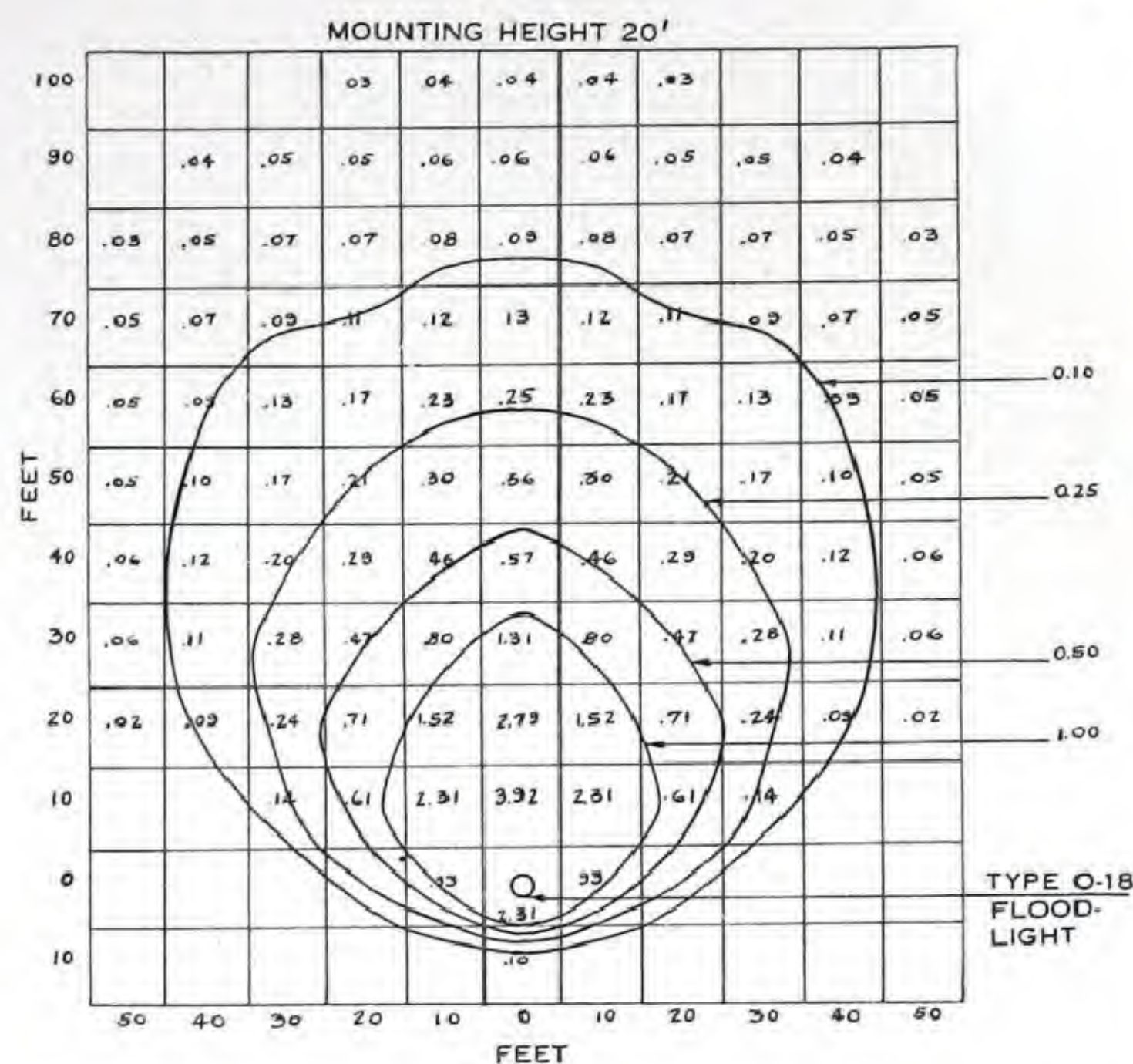
No. 25025 single and No. 25027 double arm brackets are supplied to fit the No. 25024 pipe standard or any other standard made up of 2-inch pipe, the fitting which slips over the pipe standard being held at any desired position by tightening the two set screws in the sleeve. The single bracket provides for an extension of 11 inches from the center of the pipe support to the center of the floodlight. The double bracket has an extension of 14 $\frac{1}{2}$ inches between the center of the pipe support and the center of the floodlight. The top ornament at the pipe support is easily removable to facilitate wiring. The floodlights are attached to the single and double brackets through a Universal ball and socket joint so that they can be trained at any desired angle within 20 degrees from the center in all directions.

The No. 25028 ornamental base is supplied where it is desired to enhance the appearance of the pipe standard assembly. It is a one-piece ornamental casting with 15-inch base diameter which is slipped over the pipe standard.

List No.	List Price Each
25024 Pipe standard—22 feet long in one piece, made up of 3 sections of 3-in., 2 $\frac{1}{2}$ -in. and 2-in. pipe respectively, welded together.....	\$19.50
25025 Single bracket, 11-in. extension, to fit over standard 2-in. pipe.....	5.00
25026 Single bracket, 11-in extension, with flange for mounting on wood pole or flat surface.....	5.00
25027 Double bracket—14 $\frac{1}{2}$ -in. extension on each side at center, to fit over standard 2-in. pipe.....	9.00
25028 Ornamental base.....	9.50

Keystone Floodlights

TYPE O-18



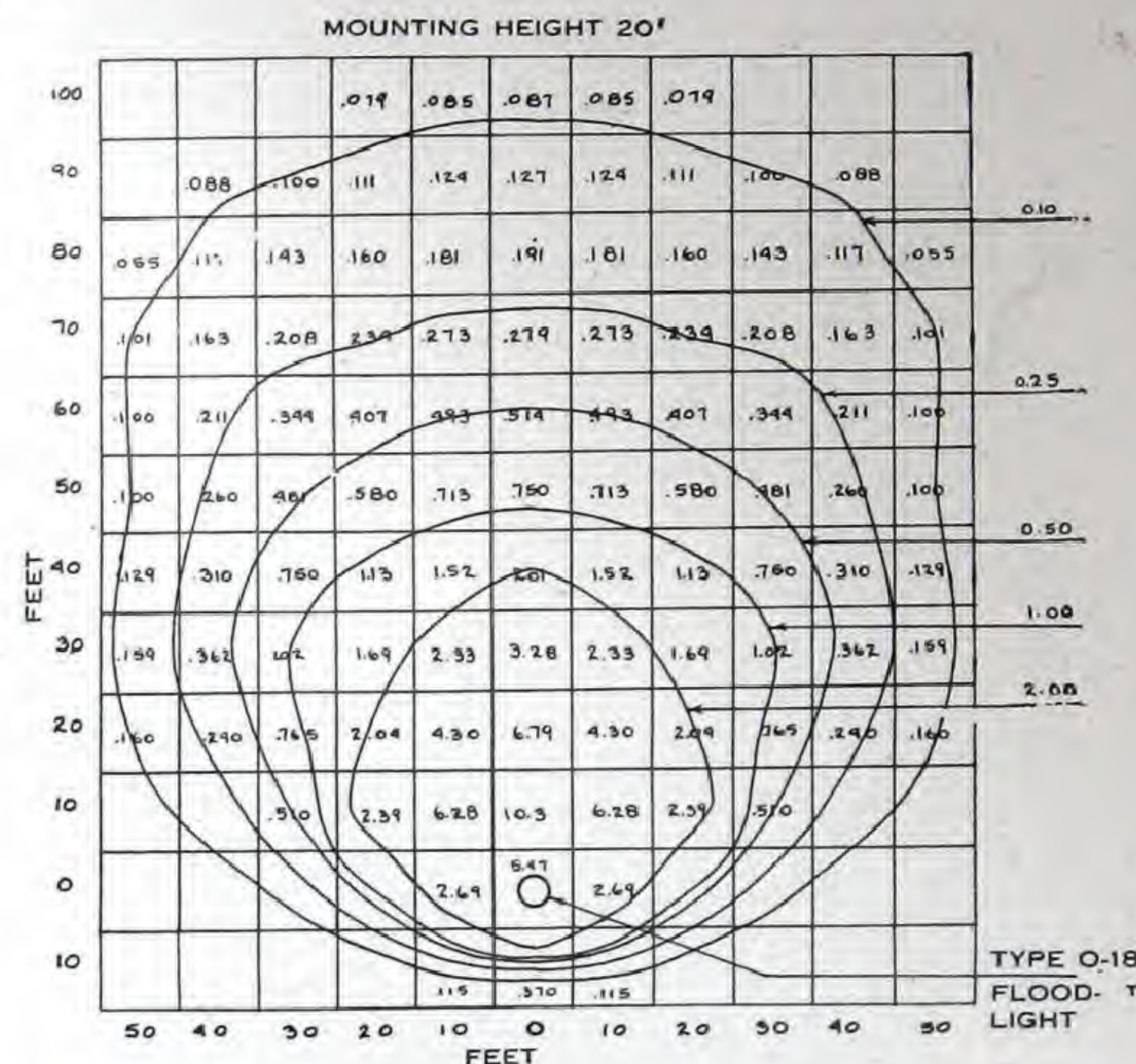
PLOTTED CHART OF COVERAGE AND INTENSITY

Type O-18 floodlight, painted aluminum reflecting surface and skirt.

Lamp, 500 watt, 115 volt, PS-40 bulb

Mounting height, 20 feet.

Intensity values are in foot-candles made on horizontal plane at the center of each 10-foot block.

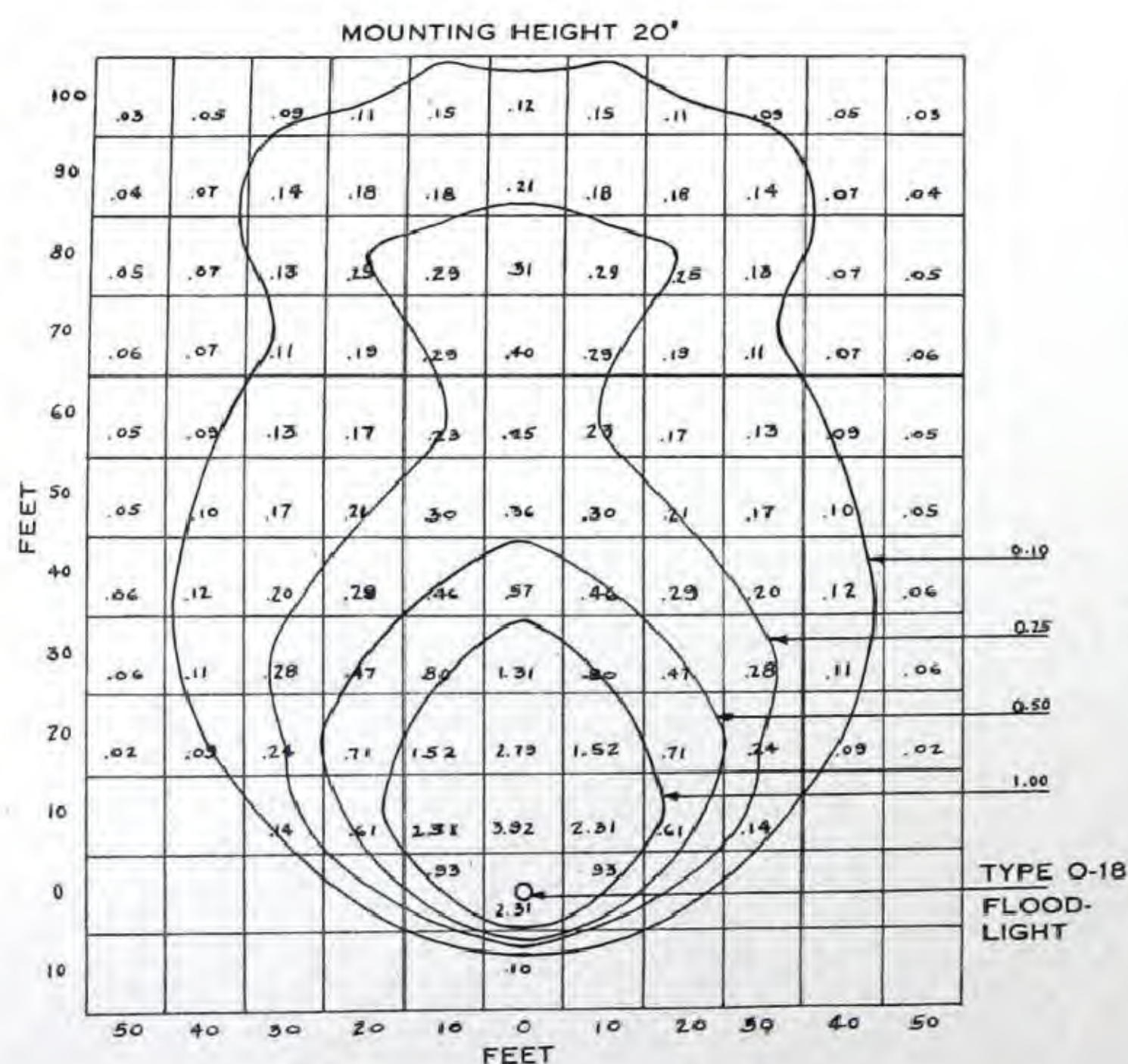


PLOTTED CHART OF COVERAGE AND INTENSITY

Type O-18 floodlight, oxidized aluminum reflecting surface and skirt.

Lamp, 1000 watt, 115 volt, PS-52 bulb.

Intensity values are in foot-candles made on horizontal plane through base of pole at the center of each 10-foot block.



PLOTTED CHART OF COVERAGE AND INTENSITY

Type O-18 floodlight, polished chrome steel reflector with painted skirt.

Lamp, 500 watt, 115 volt, PS-40 bulb.

Mounting height, 20 feet.

Intensity values are in foot-candles made on horizontal plane through base of pole at the center of each 10-foot block.

The plotted charts showing coverage and intensity values of the type O-18 floodlight shown on this page are all for a mounting height of 20 feet. The floodlighting units differ only in type of reflecting surface and lamps used. In all of these charts the intensity values are given in foot-candles made on a horizontal plane through base of pole.

To determine the coverage and intensity of these units at heights greater or less than 20 feet, it is necessary to use the table of factors given below.

TABLE OF FACTORS

Mounting Height, Feet	10	15	20	25	30	35	40
Area Factor.....	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Intensity Factor.....	4.00	1.80	1.00	0.64	0.45	0.33	0.25

In the table above, determine the desired mounting height of the floodlight unit and directly below this will be found the area factor. The area factor given is to be applied to the 10-foot blocks shown in the diagram; e.g., for a 30-foot mounting it will be noted in the table that the area factor is 1.5, which, when applied to the 10-foot blocks in the diagrams, increases their size to 15-foot blocks.

To find the intensity in foot-candles, refer to the table above and find the intensity factor to be applied to the intensities given in the diagrams; e.g., for a mounting height of 30 feet, the intensity factor of 0.45 should be applied to the intensities shown in the blocks in the diagram. The intensities in each block, therefore, should be multiplied by 0.45 in this case.

Keystone Floodlights

TYPE N-94



No. 52988 Keystone Floodlight

APPLICATION—This floodlight fulfills the need for a low-priced, weather-proof unit for decorative and general purpose floodlighting. They may be used effectively in a great many of the smaller utilitarian floodlighting projects, some of which are listed below:

Out-door flower gardens	Christmas trees
Garages and driveways	Exhibits
Gasoline filling stations	Flags
Small signs	Small statues
Porches	Roadside stands
Fountains	Court yards

and numerous other applications

LAMPS—

100 watt, 115 volt, A-23 bulb, clear or frosted.
150 watt, 115 volt, PS-25 bulb, clear, No. 46920.
200 watt, 115 volt, PS-30 bulb, clear, No. 44909.

(See detailed listing of lamps below)

REFLECTOR—Reflector is of pure, sheet aluminum, acid etched to provide mat reflecting surface. The design of the reflector and its relation to the filament are such that a focusing device is unnecessary.

FRONT LENS—Special, moulded, heat resisting, plain glass lens held in place by metal retaining ring—easily removable.

BEAM DIVERGENCE—This unit, fitted with a clear lens projects a beam, the diameter of which is double the distance from the floodlight to the surface illuminated. For example:

A beam	20 feet in diameter at a distance of 10 feet.
A beam	40 feet in diameter at a distance of 20 feet.
A beam	60 feet in diameter at a distance of 30 feet.
A beam	80 feet in diameter at a distance of 40 feet.
A beam	100 feet in diameter at a distance of 50 feet.

CONSTRUCTION—The body of the unit is made of pure, sheet aluminum. The base is formed from sheet steel, hot galvanized, with four holes for mounting on flat surfaces. Trunnion is steel, hot galvanized.

INSTALLATION—Standard round base is used for installation on flat surfaces. When installation is made in ground, a spike, which is supplied with each unit, should be used. When spike is required, remove base bolt and attach spike under head of bolt, as shown in sketch herewith.



INSIDE INSTALLATION—Unit is supplied without lens or retaining ring for installation indoors, see unit No. 53234 listed below.

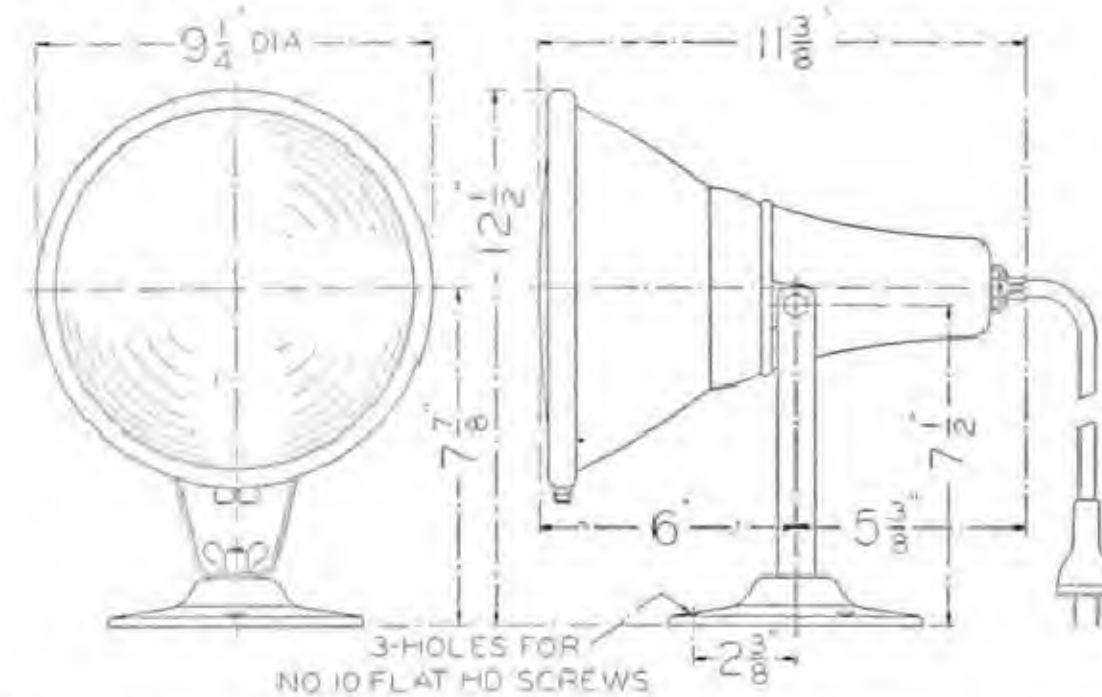
TRAINING FLOODLIGHT—Loosening two thumb screws permits training of the body of the projector to any desired angle.

RE-LAMPING—Loosening of a single screw in the lens retaining ring makes the lens easily removable for relamping or replacing.

ELECTRICAL CONNECTIONS—Floodlights are supplied with 8 feet of durable rubber cable and approved type of non-breakable plug.

COLOR LENSES—Unit is supplied with either amber, red, blue, green or clear lens, as listed below. Color lenses may be purchased separately; see listing.

DIMENSIONS—



WEIGHT—Net weight of floodlight with base is 3 1/2 lbs. Packed weight including spike is approximately 4 3/4 lbs.

PACKING—Units with spikes are packed in individual cartons attractively labeled.

PRICES—Prices do not include incandescent lamps.

List No.	Description	Lens	List Price Each
52988	Type N-94 complete	Clear	\$10.00
53235	Type N-94 complete	Amber	11.00
53236	Type N-94 complete	Red	11.00
53237	Type N-94 complete	Green	11.00
53238	Type N-94 complete	Blue	11.00
53234	Type N-94 without lens or retaining ring		8.70
27504	Red lens only		2.20
27505	Amber lens only		2.20
27506	Green lens only		2.20
27507	Blue lens only		2.20
23194	Clear lens only		1.20
53123	Retaining ring for lens only		.40

Incandescent Lamps for Type N-94 Floodlight.

List No.	Total Watts	Voltage	Style Bulb	Base	Light Centre Lgth.	Overall Lgth.	Std. Pkg.	List Price Each
*51398	100	115	A-23	Med.	4 3/8"	6-1/16"	60	\$0.35
46920	150	115	PS-25	Med.	5 1/4"	6-15/16"	24	.60
44909	200	115	PS-30	Med.	6"	8-1/8"	24	.80

*This lamp is inside frosted. It is supplied clear if so specified on order

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CCA

Golden Glow Lantern-Floodlights



The newly floodlighted bank becomes a landmark immediately. Turn on the lights and it is the talk of the town. Very effective floodlighting of bank buildings can be had by using Golden Glow Lantern-Floodlights mounted on standards installed at the curb line. Illustration shows night view of the Broadway Trust Company, Camden, N. J.

(This building is lighted on two fronts. The front illustrated above is 77 feet high and 43 feet wide. From curb to building is 12 feet. Four 11-foot standards fitted with 8 type L-918 lanterns illuminate the front illustrated.)

Golden Glow Lantern-Floodlights



To realize the most from your building investment, floodlighting should be used during hours of darkness. A beautiful exterior is still more beautiful when painted with light against a background of darkness. The Jenkintown Bank and Trust Company, Jenkintown, Pa., impresses upon the community its progressiveness and stability by using Golden Glow Lantern-Floodlights to produce the beautiful effect pictured above. (Height of building 40 feet, width 60 feet, curb to building 25 feet, standards spaced 35 feet, height of standards 12 feet. Equipment 2 lantern-floodlights type L-1419.)

Golden Glow Lantern-Floodlights



Floodlighting is a dignified advertising medium for banking institutions. The beautiful lighting effect produced for the Colonial Trust Company, Philadelphia, illustrated above, was accomplished by the use of Golden Glow

Lantern-Floodlights installed at the curb line.

(Height of building 42 feet, width 50 feet, curb to building 13 feet, standards spaced 30 feet, height of standards 12 feet. Equipment 4 lantern-floodlights type L-1419.)

Golden Glow Lantern-Floodlights



Night view of the Norristown-Penn Trust Company building, Norristown, Pennsylvania floodlighted using Golden Glow Lantern-Floodlights and illustrating the practicability of floodlighting a six-story building from the curb line. (Height of building 110 feet, width 68 feet 8 inches, depth 132 feet, curb to building 15 feet, standards spaced 38 feet, height of standards 12 feet. Equipment 12 lantern-floodlights type L-1419.)

Golden Glow Lantern-Floodlights



Many stations of the Atlantic Refining Company, Philadelphia, are using Golden Glow Lantern-Floodlights.
(Equipment—4 type L-918 lantern-floodlights, height of standards 10 feet. Size of plot approximately 40 feet x 75 feet.)



The Tide Water Oil Company, Philadelphia, have several outstanding Golden Glow Lantern-Floodlight installations.
(Equipment—5 type L-918 lantern-floodlights mounted on 10-foot standards)



The Cities Service Co. attracts the night traveller with light and beauty.
(Equipment—7 type L-918 Lantern-floodlights mounted on 4 10-foot standards.)

Golden Glow Lantern-Floodlights



Golden Glow Lantern-Floodlights illuminate many stations of the Sun Oil Co., Philadelphia.
(Equipment—4 type L-918 lantern-floodlights mounted on 10-foot standards. Size of plot approximately 70 feet x 70 feet.)



The Standard Oil Company also use Golden Glow Lantern-Floodlights.
(Equipment—7 type L-918 lantern-floodlights mounted on 12-foot standards.)



The Gulf Refining Co., Philadelphia, also use Golden Glow Lantern-Floodlights to attract patronage.
(Equipment—6 type L-918 lantern-floodlights mounted on 10-foot standards. Size of plot approximately 65 feet x 75 feet.)

Golden Glow Lantern-Floodlights

General Description



Daytime view of a gas station of the Petroleum Service Company in Minneapolis, Minnesota, showing the arrangement of Golden Glow lantern-floodlights. Six type L-1419 units are used.

Golden Glow lantern-floodlights are a combination of street lantern and floodlight. They are artistically designed street lanterns in which a powerful lamp and reflector is ingeniously mounted so that the unit provides a dual service. They project powerful beams of light on the project to be lighted, yet from all appearances are just ornamental street lanterns. They are, in fact, complete floodlight units.

They provide modern floodlighting for locations where the installation of the ordinary type of floodlight unit would be unsightly and mar the architectural beauty of building and layout. They greatly enhance the beauty and attractiveness of the surroundings by day as well as at night and make possible the floodlighting of a building where the space available for lighting equipment is limited to the sidewalk. They are usually installed at the curb and are designed to provide adequate illumination from such locations, thus eliminating the necessity of placing floodlight units on buildings adjoining or across the street.

Golden Glow lantern-floodlights will solve innumerable floodlight problems because they may be installed on the owner's property and operate from the existing circuit and because they can be used where space is very limited.

They provide efficient distribution of light and absence of glare by the use of mirrored prismatic glass reflectors of highest efficiency, further diffusion of light being secured by the glass panels of the lantern.

Golden Glow lantern-floodlights are supplied in several types and styles in order to provide a selection which will conform to the many different styles of architecture and layouts.

TYPE L LANTERN-FLOODLIGHTS

These lanterns are made in all iron or all-cast aluminum and are fitted with glass panels. They are supplied in two sizes fitted with 14" or 9" reflectors.

The lamp socket is rigidly fastened to the reflector by means of a metal strap, thus insuring proper focus at all times.

Below the reflector and floodlighting lamp there is provided a socket for a lamp of lower wattage, usually 200 or 300 watts—which provides general illumination similar to that afforded by a street lighting fixture, as well as to give a luminous appearance throughout the lantern.

The top of the lantern hinges and is entirely independent of the lamps and reflector equipment, thus facilitating cleaning, relamping, etc. The top is furnished with glass panels, so that light may be projected through the top.

TYPE G LANTERN-FLOODLIGHTS

Type G lantern-floodlights are made in two different styles and are of all-glass construction; the floodlighting units

being mounted within the glass lantern in a most ingenious manner. This type is often required to better conform to the architecture or general layout of the project to be illuminated, and often it is necessary to conform to an existing style of street lighting lantern. It is often possible to install the separable floodlighting unit into existing street lighting fixtures, thereby transforming them into units which will provide the floodlighting feature as well. Further description of these units is given on the following pages.

MOUNTING LANTERN-FLOODLIGHTS

Lantern-floodlights are provided either for mounting on existing poles, standards or brackets or supplied with ornamental standards of various heights and designs, brackets, bases, etc. Furthermore, they are supplied with standards for mounting a single lantern or with provisions for mounting groups of two or more lanterns. In addition lanterns and standards or lanterns only are supplied without floodlighting feature where they are required to carry out a uniform scheme of lighting at points where the floodlight feature is not required.

On pages following various types of lanterns are listed followed by a separate listing of standards made entirely of cast iron and standards consisting of pressed steel shafts with cast iron bases together with capitals and brackets where required. Thus when ordering, it is necessary to select the combination of parts needed to secure the required assembly.

INSTALLATION

Consideration of Project—Golden Glow lantern-floodlights are widely used in floodlighting medium sized buildings, gas service stations and numerous other similar projects. As already pointed out they present a very attractive appearance in the daytime and on account of this the installation must be such that they fit into the general daylight scheme or layout of the project to be illuminated. Careful thought should be given in selecting the style of units, placing of the units, the general lay-out and the color of painting, in order to make the entire project harmonious and pleasing to the passerby.

Limitations—It is inadvisable to use too many standards when it makes them too closely spaced along the curb of the sidewalk. When a great number of lanterns are required it is better to mount two or more lanterns on single standards. The width of the sidewalk is also a limiting factor but satisfactory installations have been made from sidewalks eight feet in width. The height also has its limitations but exceptionally good installations have been made on six-story buildings from a fifteen-foot sidewalk. An example of this is the illumination of the Norristown-Penn Trust Company building illustrated on page 32 of this bulletin. In this

Golden Glow Lantern-Floodlights

Lantern-Floodlights, Type L-1419

installation 12 lantern-floodlight units are mounted on 6 standards.

Placing of Standards—On a common width of sidewalk standards should not be placed closer than 20 feet apart. It is also important not to place the standards directly in front of the entrance to the building. Instead, having one on either side of the entrance adds greatly to the attractiveness of the general lay-out and provides an inviting appearance. The installations pictured on the preceding pages illustrate these points.

Conforming to Existing Equipment—In cases where existing street lanterns are of a certain type it is advantageous to select similar equipment so that the general appearance will conform to the street lighting system.

Coverage—After having determined the type of lantern and standard to be used and the number of floodlighting units which can be conveniently located without marring the appearance of the general lay-out, the problem of securing even illumination of the building becomes uppermost.

In general, one floodlighting unit located on the curb of a usual width sidewalk, approximately 12 feet, will illuminate an area of about twenty feet wide by fifty feet high. A still greater surface can be covered by directing the beams of projected light at such an angle that they wash across the surface to be illuminated. In this case an even number of floodlighting units should be used.

Inasmuch as the light distribution from lanterns of all types listed does not greatly vary, except in intensity, the choice of the use of the 500-watt or 1000-watt unit generally depends upon the degree of brightness desired and the distance to the surface illuminated. In service station lighting, however, the 500-watt unit has been found to be most satisfactory.

The use of 500-watt units for the medium height buildings with throws up to approximately 15 feet gives very satisfactory results. For the higher buildings, even with average sidewalks, the 1000-watt units are more effective. If the highest possible order of brightness is desired for the project the maximum number of 1000-watt units would be required.

It should be remembered in planning a lay-out using Golden Glow lantern-floodlights that evenness of illumination and complete coverage is most essential. The maximum number of units can be used by mounting two or more units on each standard.

Tops—An acorn type top ornament is furnished on all cast iron lanterns. If requested spike ornaments will be substituted without change in price.

Indexing Device—All lanterns are complete with an indexing device for returning the reflector to the original position after relamping or cleaning thus avoiding retraining.



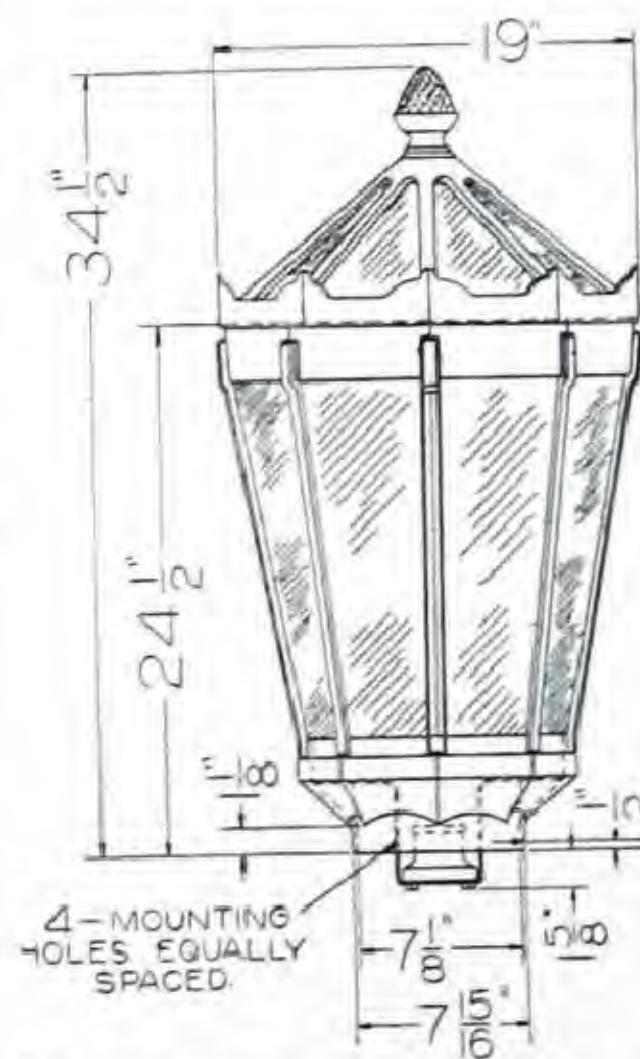
No. 28084



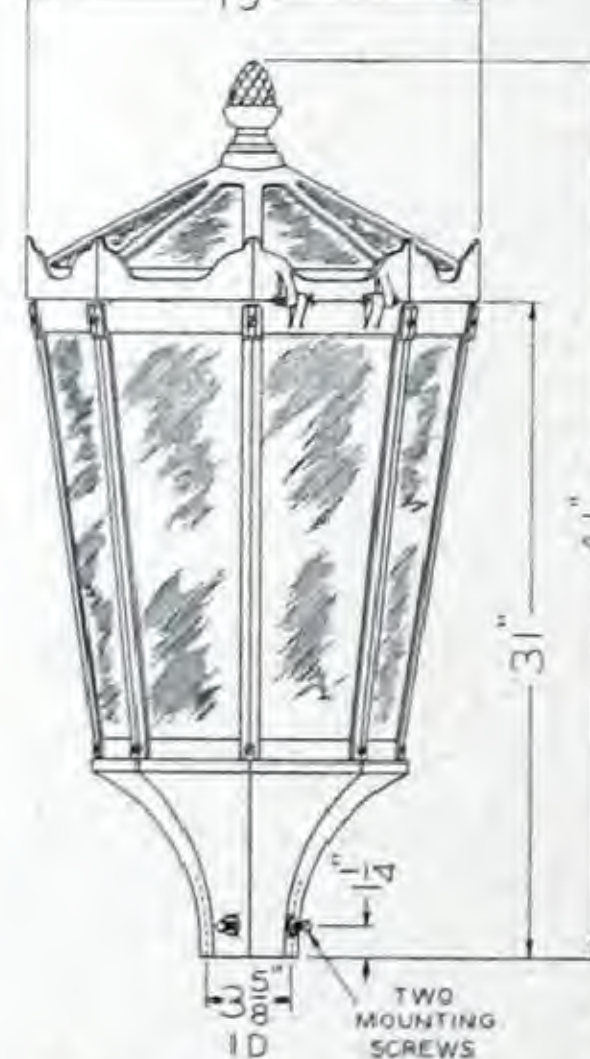
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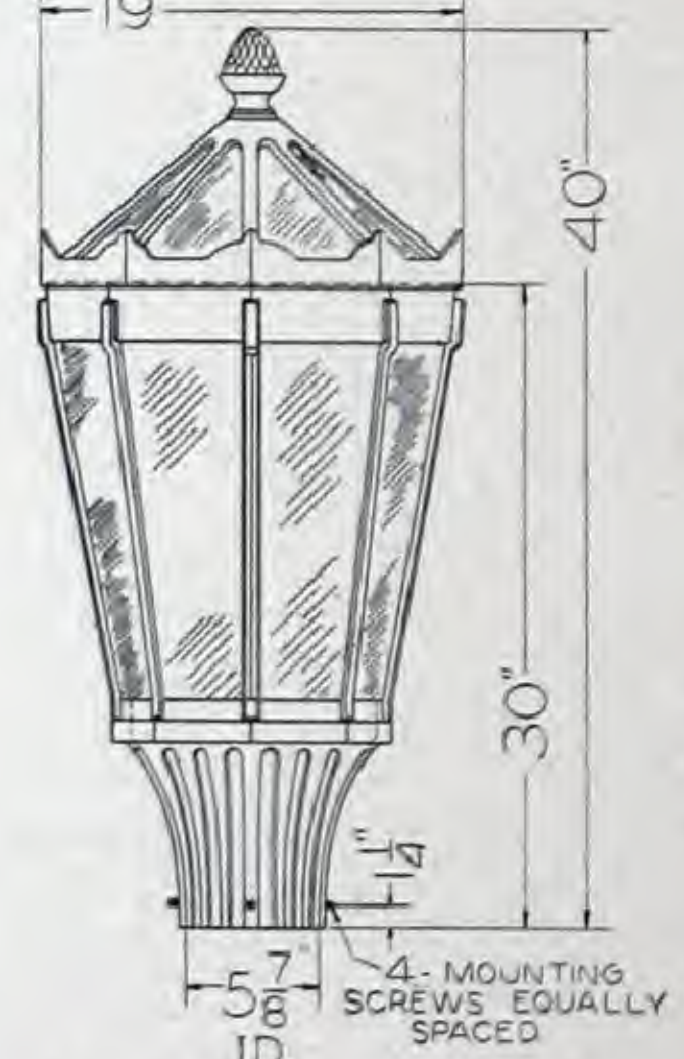
No. 28167



Nos. 28084, 29297, 28156



Nos. 52136, 52137 and 52138

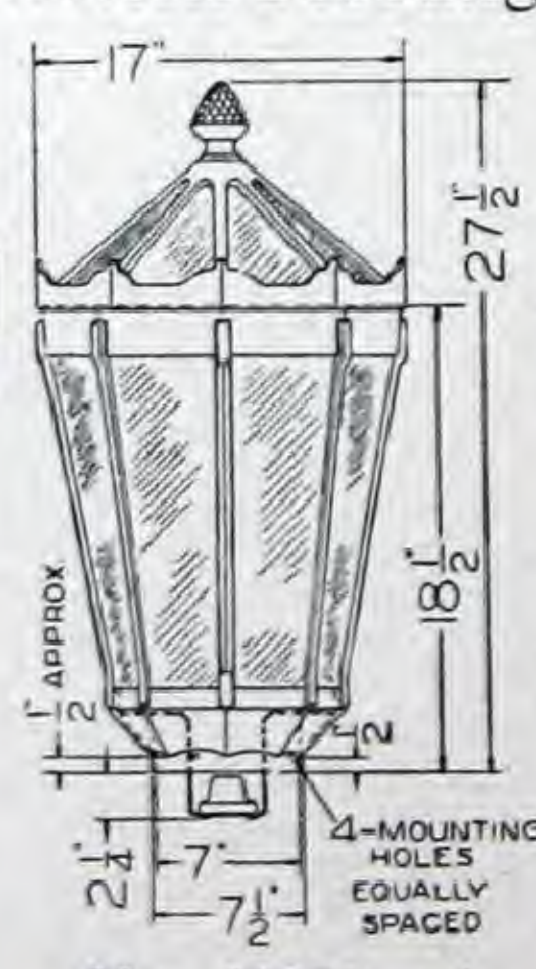


Nos. 28167, 29299, 28171

Lantern-Floodlights, Type L-918



No. 28078



Nos. 28078 and 28185



No. 51813



Nos. 51813 and 51814

Golden Glow Lantern-Floodlights

Lantern-Floodlights, Type L-1419

Type L-1419 Golden Glow lantern-floodlights are fitted with 14-inch diameter mirror glass reflectors and are supplied in either cast iron or cast aluminum construction. This type is made for three different styles of mounting as illustrated on preceding page and with two different arrangements of the reflector and socket to accommodate PS or G style bulbs. They are also supplied without floodlighting equipment.

LAMPS—For Nos. 28084, 28167, 52136 lantern-floodlights: 750 watt, 115 volt, PS-52 bulb, general lighting service No. 44917. 1000 watt, 115 volt, PS-52 bulb, general lighting service No. 44919.

For Nos. 29297, 29299, 52137:

500 watt, 115 volt, G-40 bulb, floodlighting service No. 22133.

*1000 watt, 115 volt, G-40 bulb, floodlighting service No. 24414.

*Special unlisted National Mazda lamp. For prices and other lamp data see page 20.

MOUNTING—Nos. 28084, 29297, 28156 lanterns require a capital of one of the types hereinafter listed to adapt them for mounting on standards, bases or brackets, whereas Nos. 28167, 29299, 28171, 52136, 52137 and 52138 lanterns have the capital cast integral with the lantern and are therefore suitable for mounting on all standards or brackets having a proper outside neck diameter. This difference is shown in the illustrations on preceding page. Capitals, brackets and standards are listed on the following pages.

GLASS PANELS—Nos. 28156, 28171 and 52138 are fitted entirely with "Syenite" glass panels. All others listed are fitted with "Syenite" glass panels in the front and top and with frosted glass panels in the rear. Panels are listed separately on page 47.

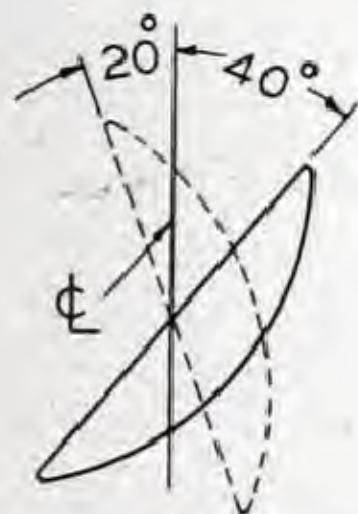


Diagram shows maximum adjustment of reflector in lanterns Nos. 28084, 28167, 52136

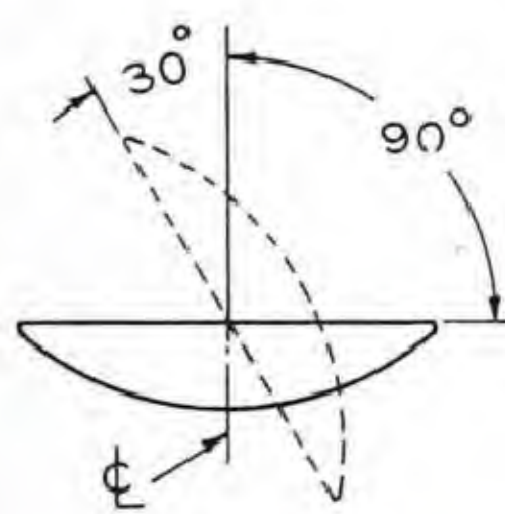


Diagram shows maximum adjustment of reflector in lanterns Nos. 29297, 29299, 52137

ADJUSTMENT OF REFLECTORS—Nos. 28084, 28167, and 52136 permit adjustment of the beam 40° (upward) above horizontal and 20° (downward) below horizontal. Nos. 29297, 29299 and 52137 permit the beam to be adjusted (upward) to a vertical position and (downward) to 30° below horizontal. See diagrams above.

SOCKETS—Mogul screw base sockets are used in all types listed, including the socket provided in the base of all lanterns in which may be used suitable mogul base PS lamps in wattages up to 300. A mogul to medium adapter may be used when a smaller lamp is desired.

FINISH—Standard finish on all lanterns is one coat of green primer paint.

Each of the several types of lanterns listed below may be made of cast aluminum in place of cast iron. This change increases the list price \$8.50 each for lanterns without integral capital and \$13.00 each for lanterns with cast integral capital. If sand blasted aluminum finish is required there will be a further additional increase to the list price of \$3.00 each.

List prices below do not include incandescent lamps.

CAST IRON LANTERNS

List No.	Type	Floodlight Equip.	Capital	To Fit Neck	Style Bulb	Weight	List Price
28084	L-1419	14-in. unit	None		PS	74	\$84.00
28167	L-1419	14-in. unit	Integral	5½ in.	PS	87	84.00
52136	L-1419	14-in. unit	Integral	3½ in.	PS	81	84.00
29297	L-1419	14-in. unit	None		G	74	84.00
29299	L-1419	14-in. unit	Integral	5½ in.	G	87	84.00
52137	L-1419	14-in. unit	Integral	3½ in.	G	81	84.00
28156	L	None	None			63	50.00
28171	L	None	Integral	5½ in.		76	50.00
52138	L	None	Integral	3½ in.		70	50.00

Lantern-Floodlights, Type L-918

Type L-918 Golden Glow lantern-floodlights are equipped with 9-inch diameter mirror glass adjustable reflectors, designed for the proper projection and dispersion of the light and are furnished for two different styles of mounting as illustrated on preceding page. They are furnished in cast iron or cast aluminum construction with or without floodlighting equipment.

LAMPS—For the Nos. 28078 and 51813 lantern-floodlight:

300 watt, 115 volt, PS-35 bulb, general lighting service, No. 23356.

500 watt, 115 volt, PS-40 bulb, general lighting service, No. 22514.

For prices and other lamp data, see page 20.

MOUNTING—Nos. 28078 and 28185 lanterns require a capital of one of the types hereinafter listed to adapt them for mounting on standards or brackets whereas Nos. 51813 and 51814 have the capital cast integral and are therefore suitable for mounting on standards or brackets having a neck diameter of 3½-inches.

GLASS PANELS—Nos. 28078 and 51813 lanterns are fitted with "Syenite" glass panels in the front and top and with frosted glass panels in the rear. Nos. 28185 and 51814 lanterns are fitted entirely with "Syenite" glass panels. Panels are listed separately on page 47.

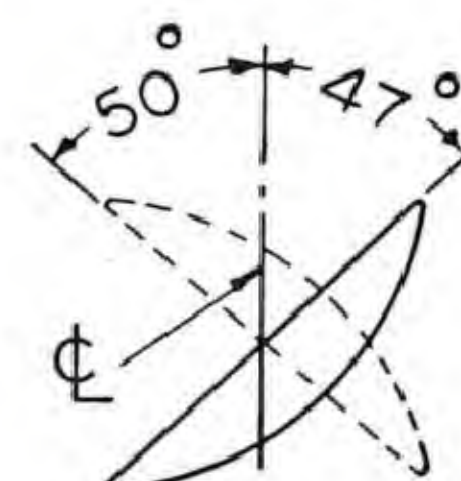


Diagram shows maximum adjustment of reflector in lanterns Nos. 28078 and 51813

ADJUSTMENT OF REFLECTOR—Nos. 28078 and 51813 permit adjustment of the beam 47° (upward) above horizontal and 50° (downward) below horizontal. See diagram above.

SOCKETS—Mogul socket is provided in the floodlight unit and a medium screw socket is provided in the base of the lantern to accommodate a 200-watt PS-bulb.

FINISH—Standard finish on all lanterns is one coat of green primer paint.

Each of the several types of lanterns listed below may be made of cast aluminum in place of cast iron. This change increases the list price \$7.00 each for lanterns No. 28078 and No. 28185, and \$9.00 each for lanterns No. 51813 and No. 51814. If sand blasted aluminum finish is required there will be a further additional increase to the list price of \$3.00 each.

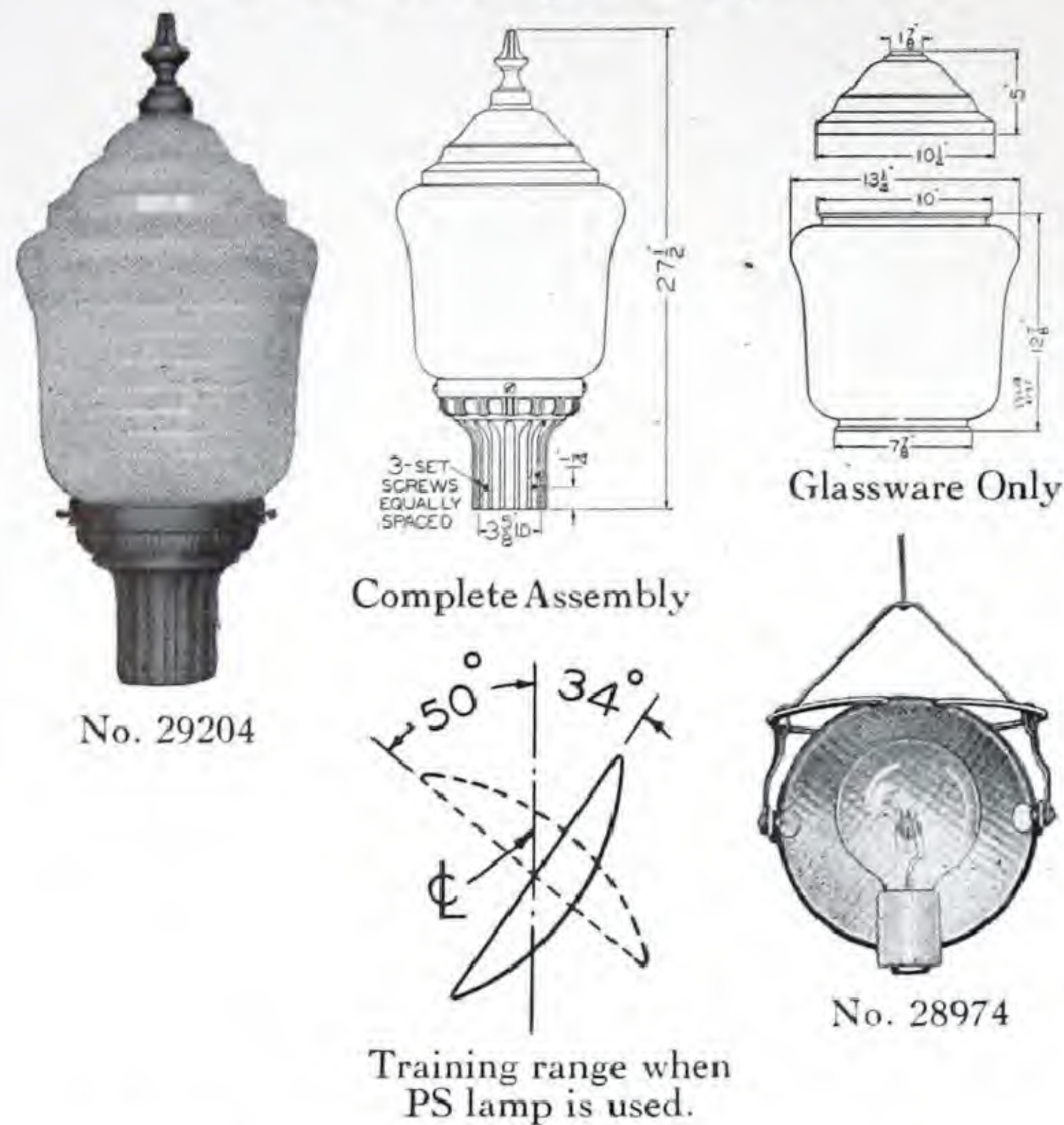
List prices below do not include incandescent lamps.

CAST IRON LANTERNS

List No.	Type	Floodlight Equip.	Capital	To Fit Neck	Style Bulb	Weight	List Price
28078	L-918	9-in. unit	None		PS	48	\$58.50
28185	L	None	None		PS	41	34.50
51813	L-918	9-in. unit	Integral	3½ in.	PS	52	58.50
51814	L	None	Integral	3½ in.	PS	45	34.50

Golden Glow Lantern-Floodlights

Lantern-Floodlights, Type G-918



Type G-918 lantern type floodlight projector consists of an all-glass lighting unit which houses a 9-inch diameter adjustable crystal prismatic mirror glass reflector to which is attached a Mogul type socket for use with a 500-watt, G-bulb, Mazda floodlight lamp or 500-watt PS general lighting service lamp. This socket being permanently attached to the reflector keeps the lamp constantly in focus.

When the 500-watt G-bulb is used for floodlighting a standard medium base 250-watt G-bulb may be used in the base of the unit for general illumination in addition to the floodlighting. The base lamp must be omitted when this unit is used with 500-watt PS lamp.

The body glassware is of the diffusing, self-cleaning type, the exterior surface being such that rain will wash away the accumulation of dust and dirt which would otherwise reduce the efficiency of the light transmission. The floodlight unit is removable from the housing without the use of tools, being supported by spring ring which snaps into position.

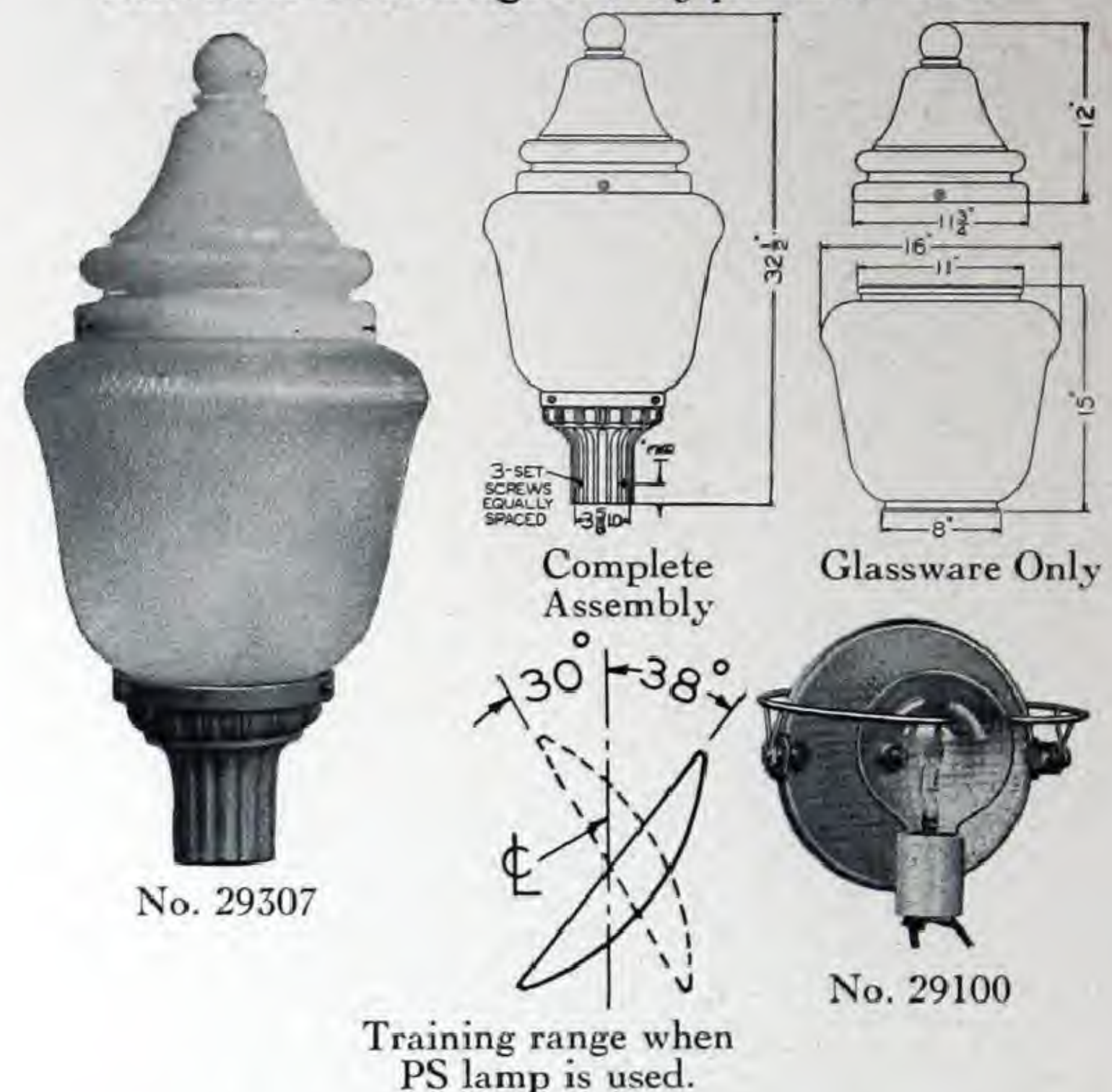
The above line diagram shows the training range obtained when 500-watt PS lamp is used. The reflector may be trained to any desired position when the 500-watt G lamp is used.

No. 28157 capital listed below is used on standards, poles or brackets having a neck diameter of 3 1/2 inches.

Weight of Nos. 29204 and 53745 lanterns complete with floodlight is approximately 26 pounds and No. 29206 without floodlight, 21 pounds. Prices do not include incandescent lamps.

List No.	List Price Each
29204	Type G-918, lantern-floodlight for 500-watt G lamp and No. 28157 capital and socket.....
53745	Type G-918 lantern-floodlight for 500-watt PS lamp and No. 28157 capital and socket.....
29205	Type G-918, lantern-floodlight for 500 watt G lamp without capital or lower socket.....
24931	Type G-918 lantern-floodlight for 500-watt PS lamp without capital or socket.....
29206	Type G lantern and No. 28157 capital and socket without floodlight equipment.....
28974	Type G-918 floodlighting reflector unit complete for 500-watt G lamp with socket.....
52664	Type G-918 floodlighting reflector unit complete for 500-watt PS lamp with socket.....
28157	Capital with medium screw base socket.....
29208	Outer glass globe.....
29209	Glass canopy.....
29210	Top ornament only for Nos. 29204 and 29205.....
24211	Top ornament with mounting ring for No. 29206.....

Lantern-Floodlights, Type GW-918



Type GW-918 Lantern type floodlight projector consists of an all-glass lighting unit made in two parts, held together by a concealed metal ring and mounted on a cast iron capital. This unit houses a 9-inch diameter adjustable crystal prismatic mirror glass reflector to which is rigidly attached a mogul type socket for use with a 500-watt, G-bulb, Mazda floodlight lamp or 500-watt PS general lighting service lamp.

In the bottom of the lantern is mounted a standard medium Edison base socket for use with lamps up to 150 watts for general illumination.

This unit provides a satisfactory and inexpensive street lantern and floodlight combined and one that will harmonize with many existing street lighting fixtures and systems.

The body glassware is of the diffusing type, the exterior surface of which is made up of a series of horizontal and vertical flutes, so arranged that the globe can be cleaned easily with a damp cloth. The reflector light socket being in fixed relation to the reflector and the latter being swiveled, permits adjustment for the training of the floodlighting beam in any direction desired. The entire floodlighting unit is removable from the housing without the use of tools.

The above line diagram shows the degrees training which may be obtained when the 500-watt PS lamp is used. The reflector may be trained to any desired position when the 500-watt G-bulb is used.

No. 28157 capital listed below is used on standards, poles or brackets having a neck diameter of 3 1/2 inches.

Weight of No. 29307 lantern complete with floodlight is approximately 14 pounds and No. 29312 without floodlight, 10 pounds. Prices do not include incandescent lamps.

List No.	List Price Each
29307	Type GW-918 lantern-floodlight for 500-watt G lamp and No. 28157 capital with socket.....
52747	Type GW-918 lantern-floodlight for 500-watt PS lamp with No. 28157 capital and socket.....
29311	Type GW-918 lantern-floodlight for 500-watt G lamp without capital or lower socket.....
52724	Type GW-918 lantern-floodlight for 500-watt PS lamp without capital or lower socket.....
29312	Type GW lantern without floodlighting equipment and No. 28157 capital and socket.....
29100	Type GW-918 floodlighting reflector unit for 500-watt G lamp complete with socket.....
24302	Type GW-918 floodlighting reflector unit for 500-watt PS lamp complete with socket.....
28157	Capital with medium screw base socket.....
29308	Outer glass globe.....
29309	Glass canopy.....
29310	Metal band for holding canopy.....

Golden Glow Lantern-Floodlights

Capitals



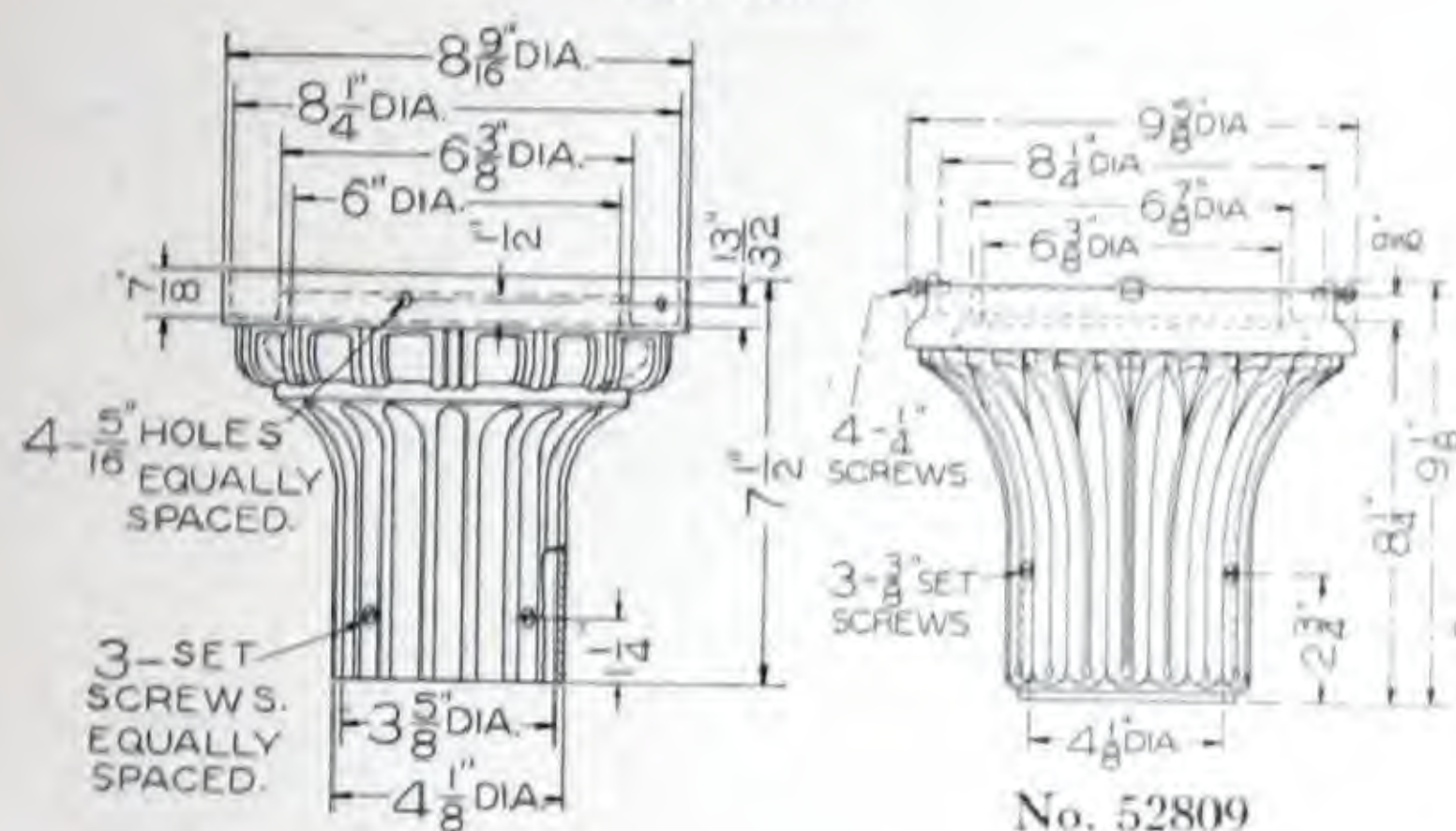
No. 28170



No. 52809

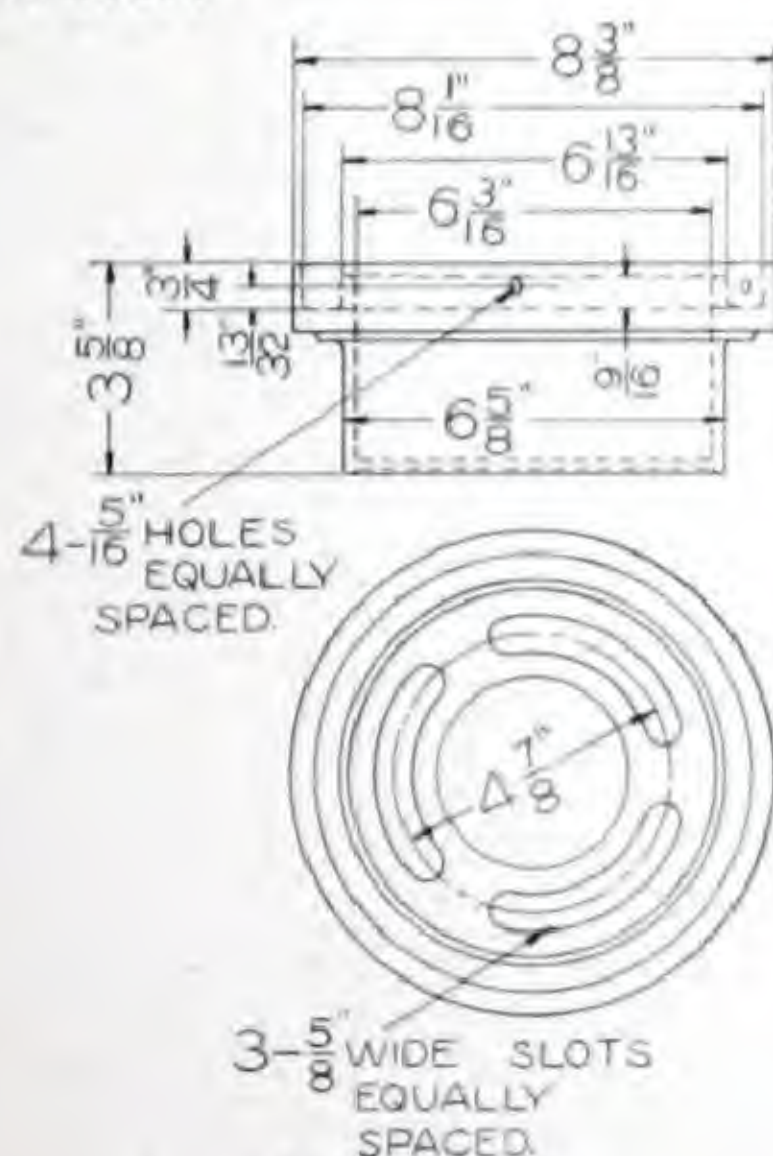


No. 28172



No. 28170

No. 52809



No. 28172

Ornamental cast iron capitals, or adaptors, are used for mounting types L-918 and L-1419 lanterns, before described. These capitals are of a uniform diameter at the top and therefore fit all types of lanterns except types which have the capital portion cast integral with the base of the lantern.

No. 28170 capital is used in connection with standards, poles or brackets having a neck diameter of $3\frac{1}{2}$ inches.

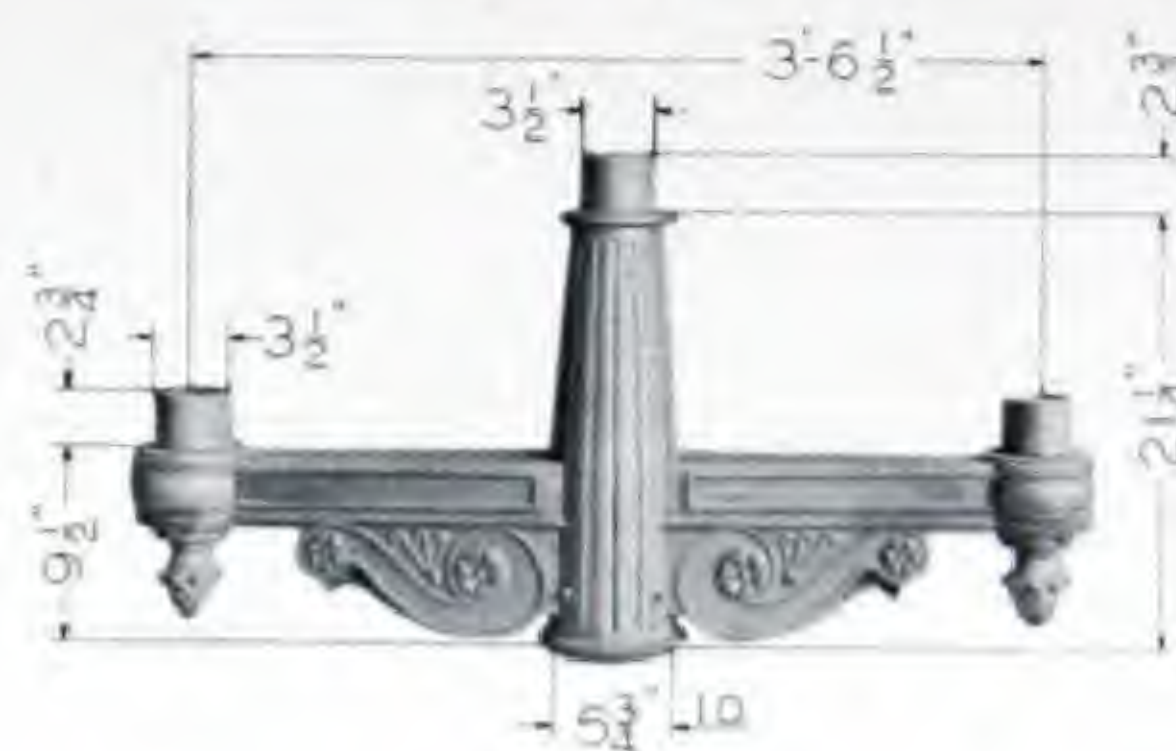
No. 52809 capital is used with standards or brackets having a neck diameter of 4 inches.

No. 28172 capital, or adaptor, is designed particularly for mounting lanterns on flat surfaces other than a pole or bracket.

All capitals are given one coat of primer paint.

List No.	Weight Lbs.	List Price Each
28170 Ornamental cast iron capital....	10 $\frac{3}{4}$	\$4.20
28172 Ornamental cast iron capital....	7 $\frac{3}{4}$	4.20
52809 Ornamental cast iron capital....	24	6.00

Brackets



No. 52139



No. 52140



No. 52141



Nos. 28207-52810



No. 28208

Ornamental cast iron brackets provide means for mounting more than one lantern to a single standard or pole.

Listing below shows standard neck diameter required for the brackets, also lantern capital diameter to be used.

One coat of primer paint is given all brackets.

List No.	Type	Std. Neck Dia.	Lantern Capital Dia.	Wt. Lbs.	List Price Each
28207	Double	5 $\frac{1}{2}$ "	5 $\frac{11}{16}$ " (A)	147	\$41.50
28208	Double	3 $\frac{1}{2}$ "	3 $\frac{5}{8}$ "	61	33.00
52810	Double	5 $\frac{1}{2}$ "	3 $\frac{5}{8}$ " (A)	147	41.50
52139	Triple	5 $\frac{1}{2}$ "	3 $\frac{5}{8}$ "	115	52.00
52140	Double	5 $\frac{1}{2}$ "	None	154	45.00
52141	Double	4"	None	120	45.00

Golden Glow Lantern-Floodlights

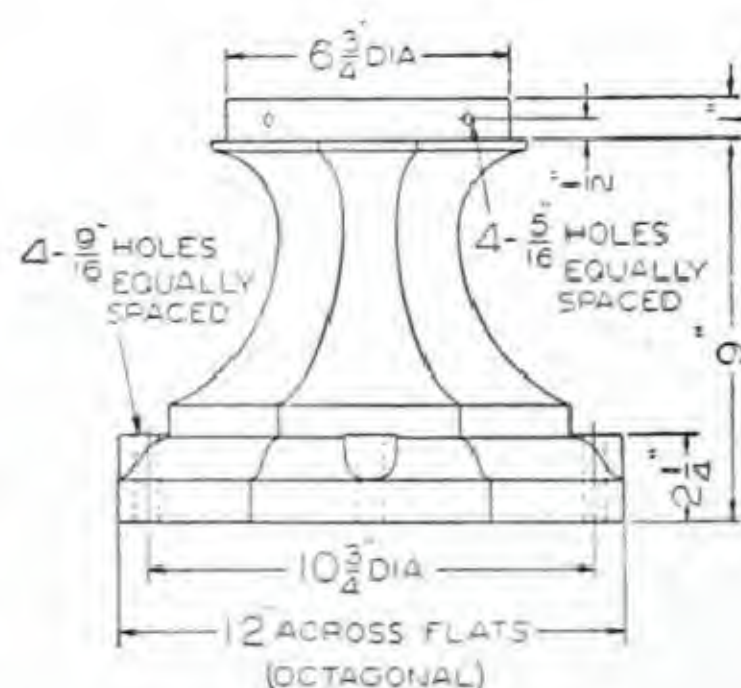
Lantern Type Bases



No. 28078 Lantern
with No. 29680 Base



No. 29680



Dimension Diagram

These bases offer means of mounting lanterns on parts of buildings where standards are not necessary, such as walls, balconies, brick pillars, etc. They are made of cast iron, of octagonal design, and may be used with types L-918 and L-1419 lanterns with or without the floodlighting feature.

Bases are given one coat of primer paint.

Principal dimensions are shown in the diagram.

List No.	List Price Each
29680 Octagonal lantern base, only.....	\$11.75

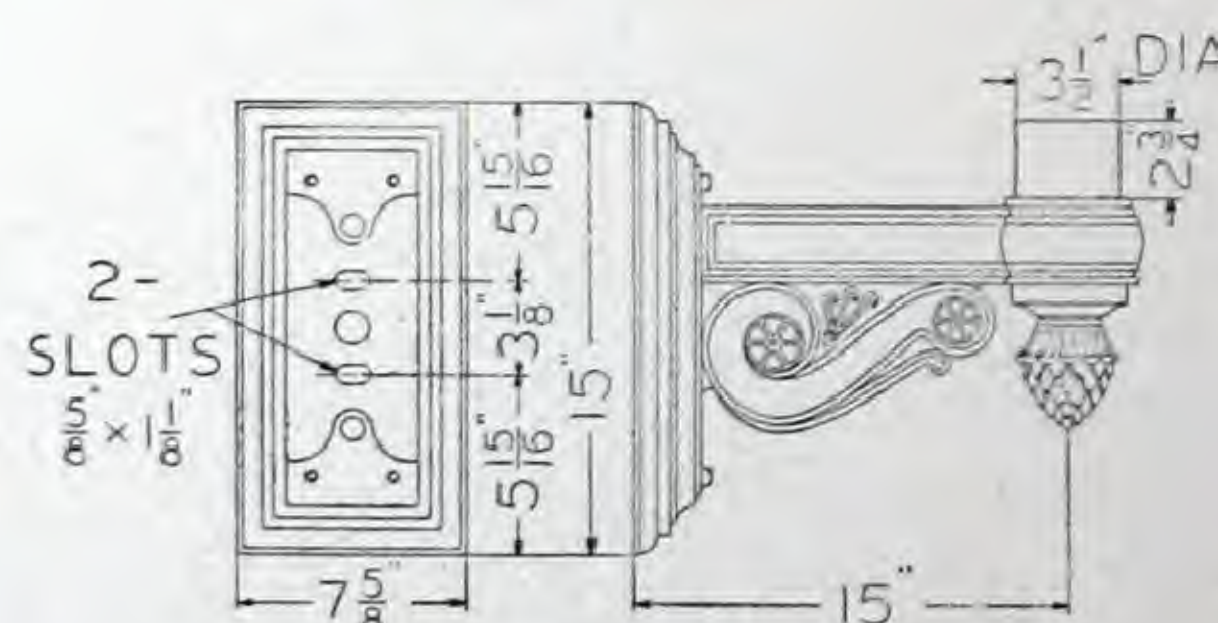
Wall Brackets



No. 28078 Lantern and No. 28170 Capital
with No. 29813 Bracket



No. 29813



Dimension Diagram

Ornamental cast iron wall brackets are designed for mounting lanterns on walls or other vertical surfaces and will take L-918 or L-1419 lanterns with or without the floodlighting feature and thus they will match similar lanterns mounted on standards.

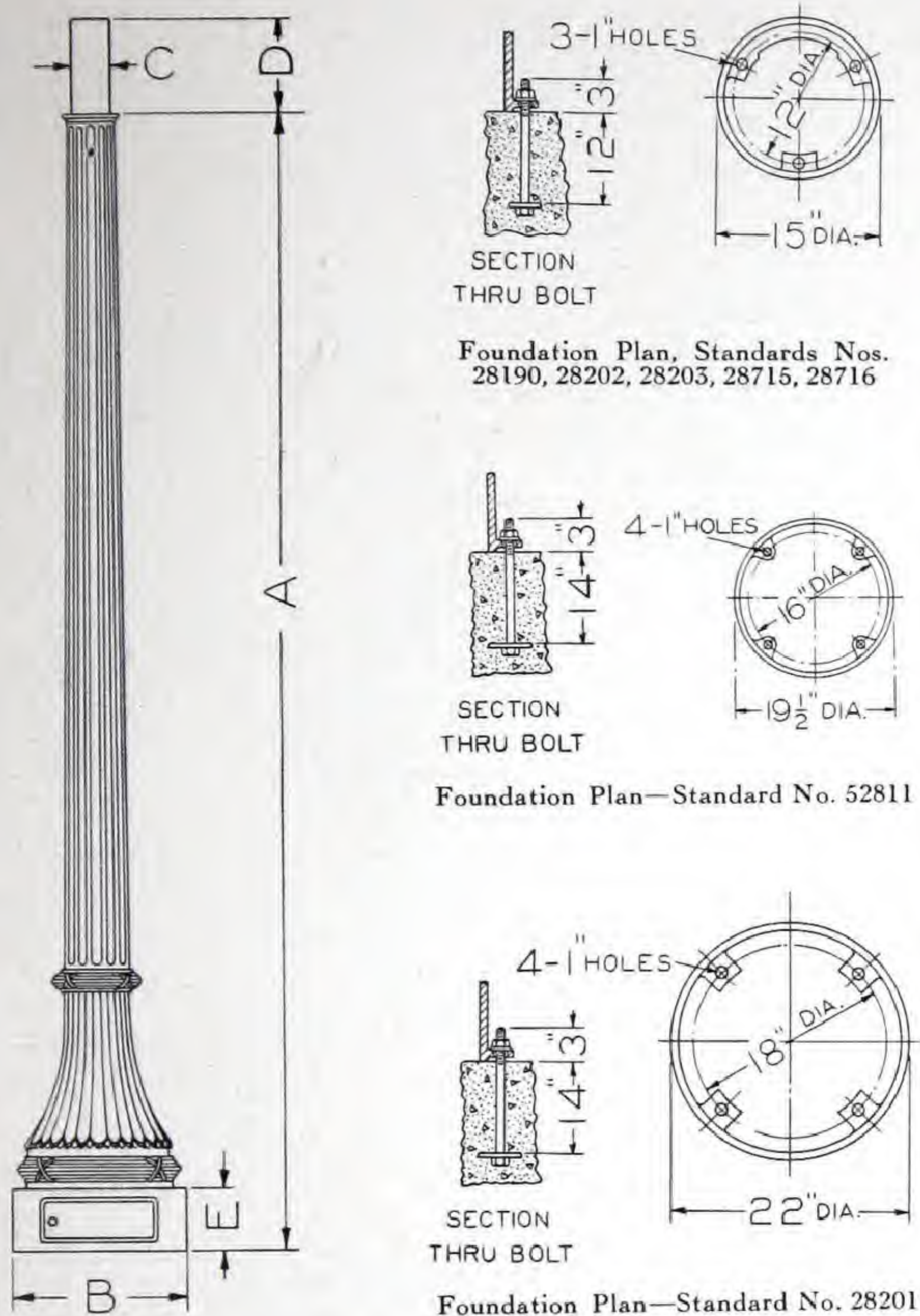
These brackets are made of cast iron and given one coat of primer paint.

Principal dimensions are shown in the diagram.

List No.	List Price Each
29813 Ornamental bracket, only.....	\$19.00

Golden Glow Lantern-Floodlights

Cast Iron Standards



Cast iron standards, or poles, for supporting Golden Glow lantern type floodlighting projectors are supplied in various sizes to suit all lanterns for either single mounting or double mounting on brackets.

Recommended combinations of standards, lanterns, capitals where necessary and brackets for double lantern installations are covered by the following table:

SINGLE LANTERN ASSEMBLIES

Standard No.	Lantern Type and No.	Capital No.	Bracket No.
28202	L- 918 28078	28170	None
28202	L- 918 52813	None	None
*28190	L- 918 28078	28170	None
28190	L- 918 52813	None	None
28203	L- 918 28078	28170	None
28203	L- 918 52813	None	None
28203	L-1419 28084	28170	None
28203	L-1419 52136	None	None
*28201	L-1419 28167	None	None
*52811	L-1419 28084	52809	None

DOUBLE LANTERN ASSEMBLIES

*28715	L- 918 2-28078	2-28170	28208
28715	L- 918 2-51813	None	28208
28716	L- 918 2-28078	2-28170	28208
28716	L- 918 2-51813	None	28208
28716	L-1419 2-28084	2-28170	28208
28716	L-1419 2-52136	None	28208
*52811	L-1419 2-28084	None	52141
28201	L-1419 2-28167	None	28207

DOUBLE LANTERN ASSEMBLIES

Standard No.	Lantern Type and No.	Capital No.	Bracket No.
28201	L-1419 2-28084	2-28170	52810
28201	L-1419 2-52136	None	52810
28201	L-1419 2-28084	None	52140

TRIPLE LANTERN ASSEMBLIES

28201	L- 918 3-28078	3-28170	52139
28201	L- 918 3-51813	None	52139
28201	L-1419 3-28084	3-28170	52139
*28201	L-1419 3-52136	None	52139

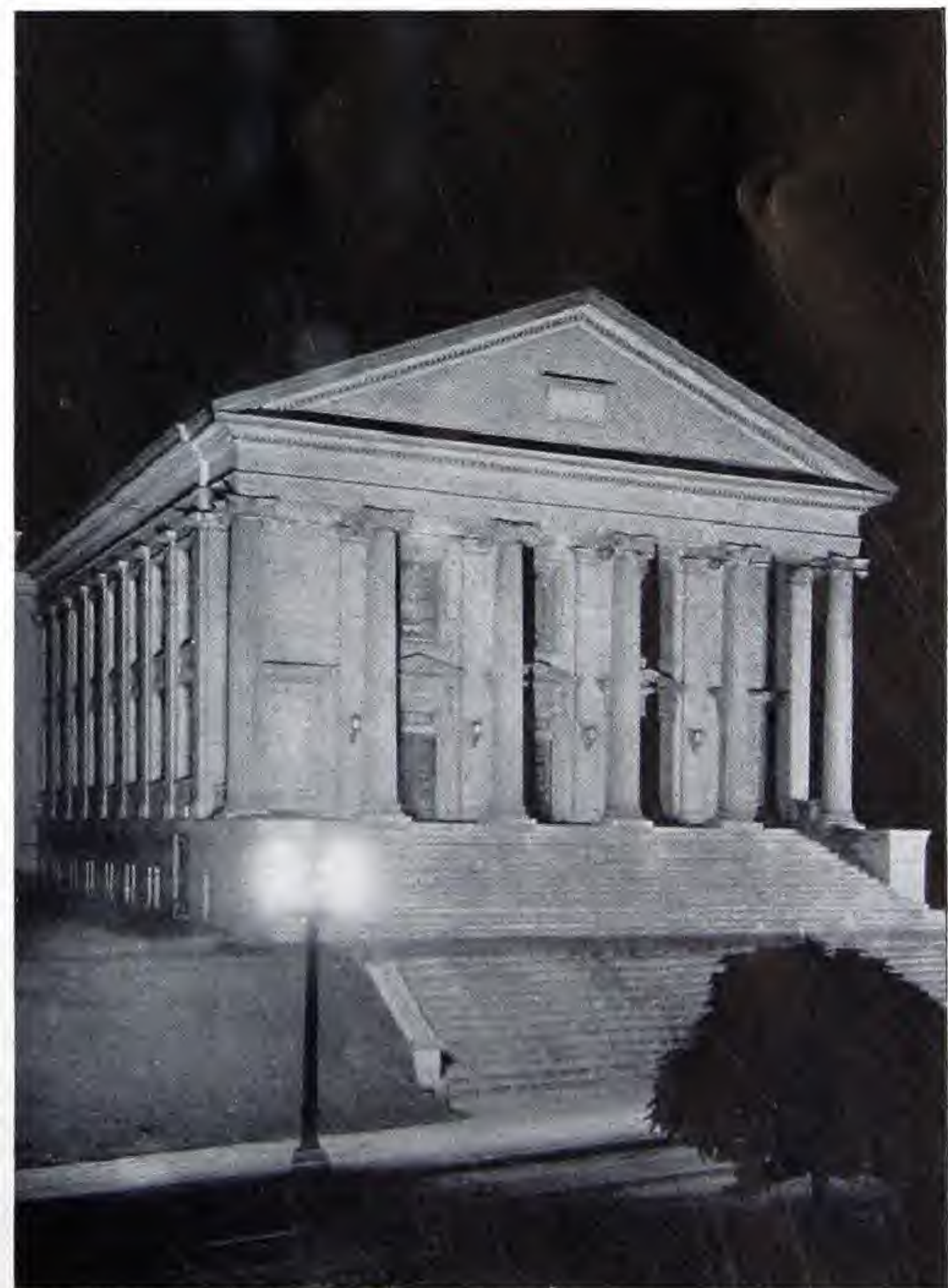
*These combinations are illustrated on the following pages.

Dimension diagrams above in conjunction with the table below give all important over-all dimensions and foundation plans are also shown in connection with the diagrams.

All standards are given one primer coat of paint.

CAST IRON STANDARDS

List No.	Dimensions in Inches					Approximate Weight	List Price Each
	A	B	C	D	E		
28202	72	15	3 1/2	3	5	160 lbs.	\$37.20
28190	106	15	3 1/2	3	5	225 lbs.	41.40
28715	106	15	3 1/2	6	5	230 lbs.	41.40
28203	131	15	3 1/2	3	5	305 lbs.	45.00
28716	131	15	3 1/2	6	5	310 lbs.	45.00
28201	144	22	5 1/2	6	8	675 lbs.	73.50
52811	148	19 1/2	4	6	5	398 lbs.	53.00



Floodlighting is a dignified advertising medium for churches. Above is illustrated the attractive edifice of the Calvary Baptist Church, Roanoke, Va. illuminated, using 4 type L-1419 lantern floodlights.

Golden Glow Lantern-Floodlights

Cast Iron Standards



Illustration shows assembly consisting of 1 No. 28078 lantern with 9-inch reflector. 1 No. 28170 capital. 1 No. 28190 cast iron standard. Height to light center, 125 inches. Height overall, 140 inches. Approximate weight, 298 pounds.



Illustration shows assembly consisting of: 1 No. 28084 lantern. 1 No. 52809 capital. 1 No. 52811 standard. Height to light center, 176 inches. Height overall, 191 inches. Approximate weight, 496 pounds.



Illustration shows assembly consisting of 1 No. 28167 lantern with 14-inch reflector. 1 No. 28201 cast iron standard. Height to light center, 169 inches. Height overall, 184 inches. Approximate weight, 762 pounds.



Illustration shows assembly consisting of 2 No. 28078 lanterns with 9-inch reflectors. 2 No. 28170 capitals. 1 No. 28208 double bracket. 1 No. 28715 cast iron standard. Height to light center, 154 inches. Height overall, 149 inches. Approximate weight, 416 pounds.

Golden Glow Lantern-Floodlights

Cast Iron Standards



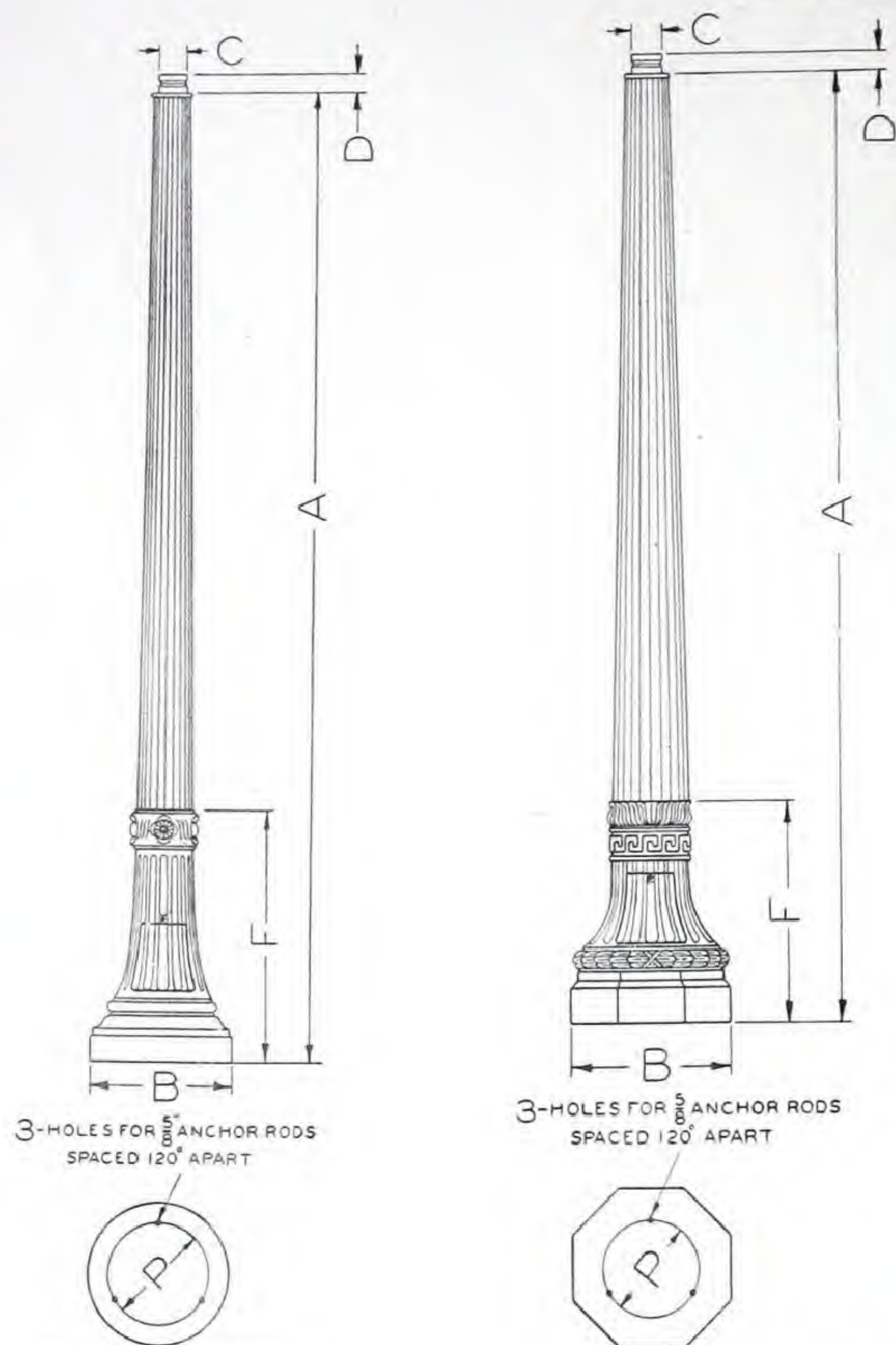
Illustration shows assembly consisting of
 2 No. 28084 lanterns with spikes.
 1 No. 52141 double bracket.
 1 No. 52811 standard.
 Height to light center, 188 inches.
 Height overall, 203 inches.
 Approximate weight, 696 pounds.
 Lanterns are shown with spike tops.
 Acorn tops will be furnished unless
 specified otherwise.

Illustration shows assembly consisting of
 3 No. 52156 lanterns.
 1 No. 52159 triple bracket.
 1 No. 28201 standard.
 Height to light center, 191 inches (center
 lantern).
 Height overall, 206 inches.
 Approximate weight, 1053 pounds.

Illustration shows assembly consisting of
 No. 28084 lanterns with spike, mounted
 on double arm bracket and octagonal
 cast iron standard.
 These standards and brackets are not listed.
 Information will be supplied upon
 request.
 Lanterns are shown with spike tops.
 Acorn tops will be furnished unless
 specified otherwise.

Golden Glow Lantern-Floodlights

Pressed Steel Standards



DOOR TOWARD THIS SIDE.
Round base standards Nos.
29006 and 29124.

DOOR TOWARD THIS SIDE.
Octagon base standard No.
29005.

Pressed steel standards or poles for supporting Golden Glow floodlight lantern type projectors are listed below. They are made up of a main shaft consisting of two thicknesses of No. 22 U. S. gauge copper bearing steel, lock seamed, die fluted and firmly pressed together; no solder or rivets being used. Joints are on the inside so that outside surfaces are smooth and clean and both inside and outside surfaces are protected against weather conditions by being heavily galvanized.

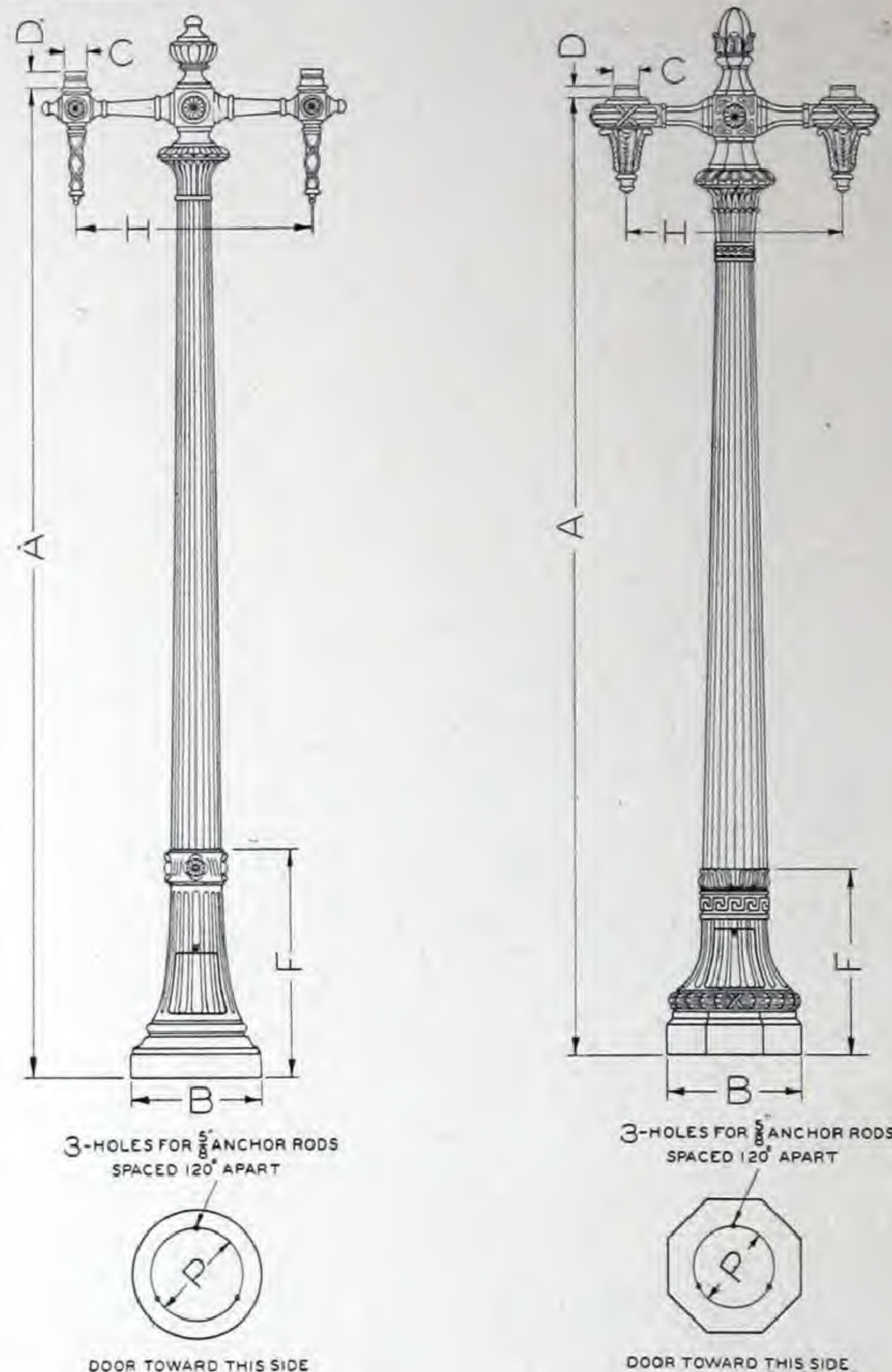
Base and top fittings are made of cast iron and complete assemblies are held in position by means of three steel anchor rods set in the concrete foundation and anchored to the top portion of the base. Three tie rods then extend from the base to the top of the standard, the assembly resulting in great strength combined with lightness in weight and ability to stand sudden impact without falling.

Recommended combinations of standards, lanterns and capitals where necessary, for both single and double installations are covered by the following table.

SINGLE LANTERN ASSEMBLIES

Standard No.	With Lantern No.	Required Capital No.
*29654	28078	28170
*29006	28078	28170
29124	28084	28170
29005	28078	28170
*29005	28084	28170
29006	28084	28170

*These combinations are illustrated on the following pages.



Nos. 29122 and 29125 round
base standards complete with
double arms for supporting two
lanterns.

No. 29123 octagon base
standard complete with double
arm bracket for mounting two
lanterns.

DOUBLE LANTERN ASSEMBLIES

Standard No.	With Lantern No.	Required Capital No.
*29122	2-28078	2-28170
29123	2-28078	2-28170
29125	2-28084	2-28170
*29123	2-28084	2-28170
29122	2-28084	2-28170

*These combinations are illustrated on the following pages.

Dimension diagrams above in conjunction with listing below give all important overall dimensions and foundation plans are also shown in connection with the diagrams.

All standards are given one primer coat of paint.

SINGLE STANDARDS

List No.	Base	A	B	C	D	F	H	P	Approx. Weight	List Price Each
29654	Round	115	13	3 1/2	1 3/4	20	9"	9"	127 lbs.	\$38.25
29006	Round	146	16 1/2	3 1/2	1 3/4	27	10"	10"	191 lbs.	50.25
29124	Round	165	20	3 1/2	1 3/4	36	14"	14"	266 lbs.	66.00
29005	Octagon	143 3/4	18	3 1/2	1 3/4	24 3/4	15"	15"	210 lbs.	57.75

DOUBLE STANDARDS

List No.	Base	A	B	C	D	F	H	P	Approx. Weight	List Price Each
29122	Round	156	20	3 1/2	2 1/2	36	36	14"	360 lbs.	\$92.25
29125	Round	175	20	3 1/2	2 1/2	36	36	14"	371 lbs.	93.75
29123	Octagon	151	21	3 9/16	1 3/4	29	35	15 1/2"	438 lbs.	114.75

Golden Glow Lantern-Floodlights

Pressed Steel Standards



Illustration shows assembly consisting of 1 No. 28078 lantern with 9-inch reflector.
1 No. 28170 capital.
1 No. 29654 pressed steel standard.
Height to light center, 134 inches.
Height overall, 149 inches.
Approximate weight, 189 pounds.



Illustration shows assembly consisting of 1 No. 28078 lantern with 9-inch reflector
1 No. 28170 capital.
1 No. 29006 pressed steel standard.
Height to light center, 165 inches.
Height overall, 180 inches.
Approximate weight, 254 pounds.



Illustration shows assembly consisting of 1 No. 28084 lantern with 14-inch reflector.
1 No. 28170 capital.
1 No. 29005 pressed steel standard.
Height to light center, 170 inches.
Height overall, 185 inches.
Approximate weight, 295 pounds.



Illustration shows No. 28084 lantern floodlight mounted on granolithic standard using No. 28172 capital.

Granolithic standards are not regularly listed but information can be supplied upon request

Golden Glow Lantern-Floodlights

Pressed Steel Standards

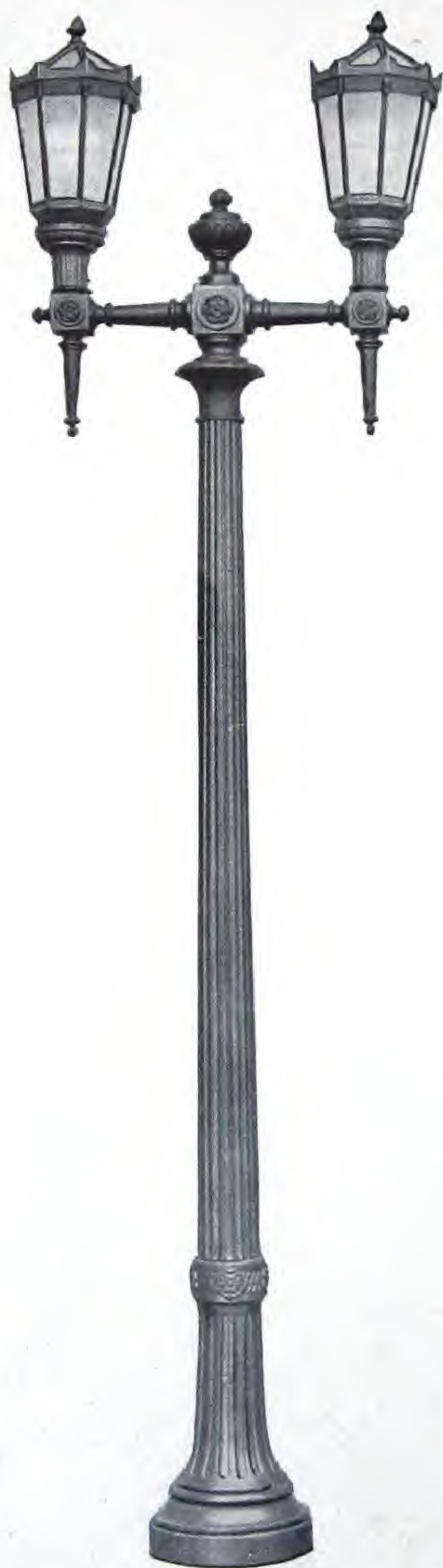


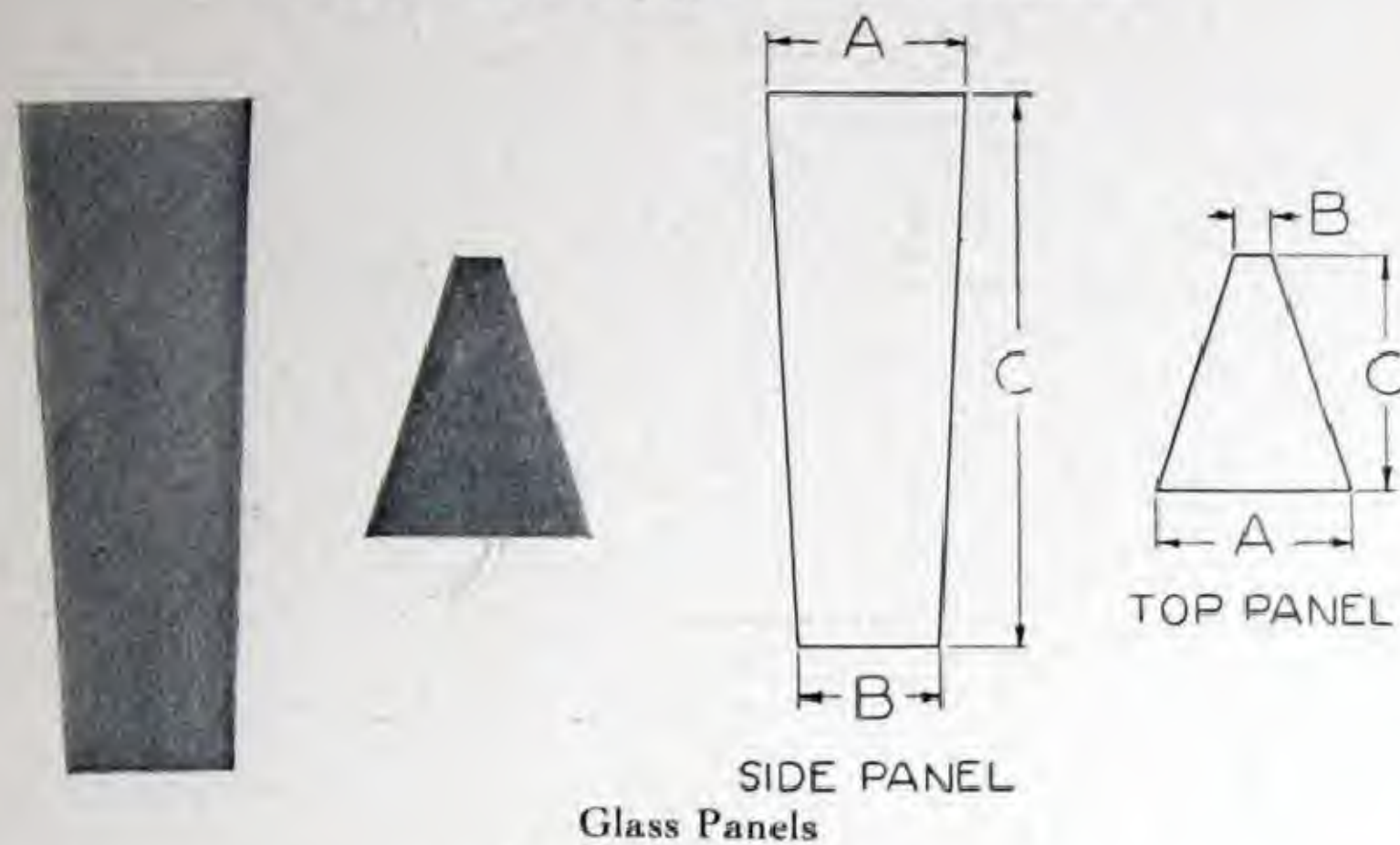
Illustration shows assembly consisting of 2 No. 28078 lanterns fitted with 9-inch diameter reflectors.
2 No. 28170 capitals.
1 No. 29122 pressed steel standard with double bracket.
Height to light center, 179 inches.
Height overall, 190 inches.
Approximate weight, 486 pounds.



Illustration shows assembly consisting of 2 No. 28084 lanterns fitted with 14-inch diameter reflectors.
2 No. 28170 capitals.
1 No. 29123 pressed steel standard with double bracket.
Height to light center, 177 inches.
Height overall, 192 inches.
Approximate weight, 608 pounds.

Golden Glow Lantern-Floodlights

Parts for Type L Lanterns



Dimensions of glass top and side panels are as follows:

Dimensions in Inches

List No.	A	B	C	Thickness
28645-46	6 $\frac{3}{8}$	4 $\frac{1}{2}$	17 $\frac{7}{8}$	$\frac{1}{8}$
28647-48	5 $\frac{3}{8}$	3 $\frac{3}{4}$	13	$\frac{1}{8}$
28649	6 $\frac{1}{8}$	1 $\frac{3}{16}$	7 $\frac{5}{8}$	$\frac{1}{8}$
28650	5 $\frac{1}{4}$	$\frac{3}{4}$	6 $\frac{3}{4}$	$\frac{1}{8}$



Reflector



No. 28769



No. 29003



No. 32425

Listed below are repair parts for types L-918 and L-1419 Golden Glow lantern-floodlights, before described.

List No.	List Price Each
27956 Crystal prismatic glass reflector, 9-in. diameter	\$11.25
27565 Crystal prismatic glass reflector, 14-in. diameter	26.25
28647 Syenite glass side panel for type L-918 lantern	.45
28650 Syenite glass top panel for type L-918 lantern	.25
28645 Syenite glass side panel for type L-1419 lantern	.65
28649 Syenite glass top panel for type L-1419 lantern	.30
28648 Double frosted glass side panel for type L-918 lantern	.60
28646 Double frosted glass side panel for type L-1419 lantern	.85
28769 Mogul socket for 9-in. and 14-in. reflectors	1.50
32425 Medium socket for bottom of type L-918 lantern	.30
29003 Mogul socket for bottom of type L-1419 lantern	1.20
51815 Plastic cement gasket for L-1419 side panel	.30
51816 Plastic cement gasket for L-1419 top panel	.15
51817 Plastic cement gasket for L-918 side panel	.20
51818 Plastic cement gasket for L-918 top panel	.15
49936 Plastic cement gasket $\frac{1}{4}$ " diameter circular cross section (approximately 32 ft. per lb.), per pound	1.10

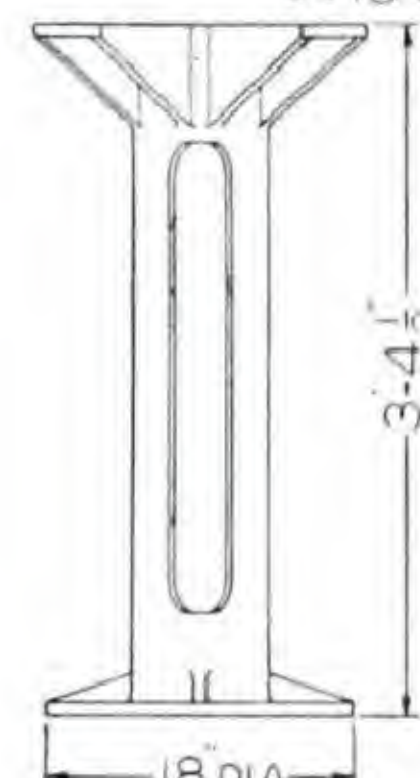
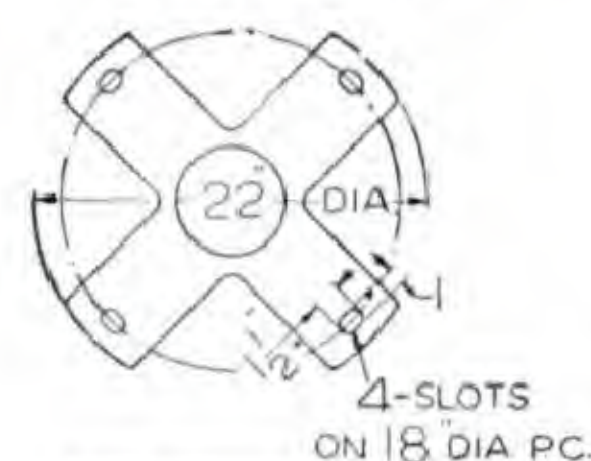
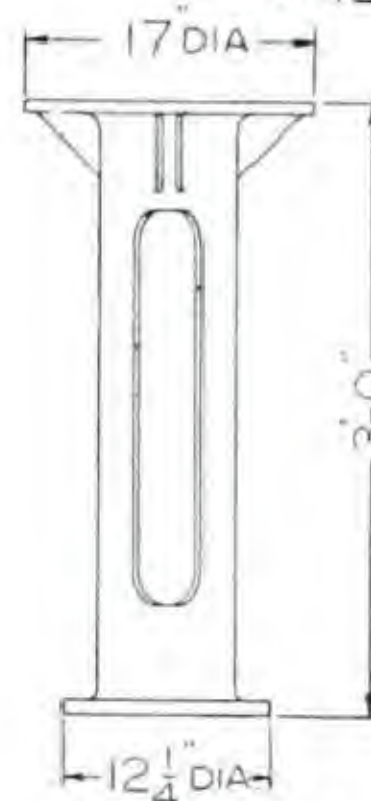
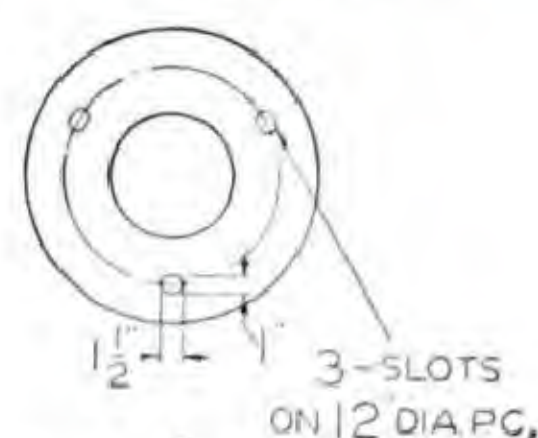
Sub Bases for Cast Iron Standards



No. 29128



No. 29129



Anchor sub bases for cast iron standards before listed are used where concrete foundations are not desired. No. 29128 fits all cast iron standards with the exception of No. 28201, the latter requiring sub base No. 29129.

Diagrams give essential dimensions.

List No.	List Price Each
29128 Cast iron sub base, standard size	\$13.20
29129 Cast iron sub base, extra large	23.40



The Uppercu-Cadillac Company, New York City, utilize the top of their building as a display room. The illumination is provided by Golden Glow lantern-floodlights as shown in the illustration above.



The Home of Golden Glow Products
ELECTRIC SERVICE SUPPLIES CO.

Manufacturers
Main Office and Plant
17th and Cambria Sts.
PHILADELPHIA, PA., U. S. A.



GOLDEN GLOW FLOODLIGHTING PROJECTORS
GOLDEN GLOW LANTERN-FLOODLIGHTS
GOLDEN GLOW RAILWAY CAR HEADLIGHTS
GOLDEN GLOW BUS HEADLIGHTS
GOLDEN GLOW LOCOMOTIVE HEADLIGHTS
GOLDEN GLOW MINING LOCOMOTIVE HEADLIGHTS